



THE UNIVERSITY OF  
**AUCKLAND**  
Te Whare Wānanga o Tāmaki Makaurau  
NEW ZEALAND

# ENGINEER YOUR CAREER

AUTUMN 2017

Information from Industry for Student Engineers

## GROWING FUTURES



If you want to make the world a better place, we'll help turn your vision into reality. Our graduate engineers are talented high performers, and important members of our project teams from day one.

### WHY HARRISON GRIERSON?

Join us and you'll become part of our award-winning team, creating landmark projects from Auckland's Sky Tower, to the Christchurch rebuild. We use the latest technologies to shape new and sustainable environments, making life better for everyone.



To learn more and to apply, visit  
**HARRISONGRIERSON.COM**

### GROWING FUTURES AT HG

'The projects I work on, the friendly culture, and the focus on personal development at HG sets it apart from other companies. There's a strong team spirit and a great social club. The highlight has been seeing something I designed myself being implemented in real life.'

**Kalindu Mendis, Graduate Land Development Engineer**

'I chose HG because I wanted to work at a company that's committed to career development. HG is a supportive workplace, with a mentoring programme and a fantastic Young Professionals' Network. It's the perfect place to start my career.'

**Julia Lovrich, Graduate Water Engineer**

'Working on projects with leading specialists is an amazing opportunity to learn from the best right from the start. The projects are stimulating and diverse. I'm so lucky to be part of a company that really cares about progressing people's careers.'

**Melanie Wood, Structural Engineer**

**GRADUATE & INTERN APPLICATIONS  
OPEN 27 MARCH - CLOSE 23 APRIL**

# MAKE AMAZING HAPPEN



## MEET ONE OF OUR GRADS

"I first began working for AECOM as a summer intern and was then offered a graduate position when I finished my undergraduate degree in civil engineering. I was excited as AECOM had the reputation of being the number one global design firm. One of the company's greatest strengths is that it has a global presence and I believed this would provide me with many opportunities to work abroad and gain international experience.

I grew up in Christchurch and was unfortunate enough to experience first-hand the damage caused by major earthquakes, which reduced the city to rubble. However, since working at AECOM, I've had many opportunities to get involved with rebuild projects and help the city return to its glory days.

I was proud to be part of the Christchurch Southern Motorway Stage 2 (CSM2) project team, where I helped deliver a key part of the government's Roads of National Significance programme (RoNS). I got great satisfaction from being part of a project that would move people and freight more safely and efficiently. I can't wait to see what is next."

**Peter Ko, Graduate Engineer,  
Transportation, Christchurch,  
New Zealand**



**Graduates – with their fresh thinking and passion for reimagining what's possible – are critical to our success.**

AECOM has the people, technology and vision to create smart solutions for our clients' challenges.

- 90,000+ AECOM team members working in over 170 countries
- 3,500+ team members across Australia and New Zealand
- 20+ offices across Australia and New Zealand

On every project and for every client, our talented teams pride themselves on big ideas, positive change, and on leaving lasting legacies that build communities.

Whether we're delivering city-shaping infrastructure or enabling clean and stable water supply to far-flung places many of us may never visit, our work makes a difference.

## WHAT ARE OUR GRADUATE OPPORTUNITIES?

We are seeking applicants from a wide range of disciplines, including civil, electrical, environmental, geotechnical, mechanical, structural, building services and chemical engineering, as well as design, planning and program and cost management fields.

Our three year Growing Professional Skills graduate program is designed to help you bridge the gap between formal education and the workplace. As part of the program, we work with you to develop a plan, set your goals, and the actions required to achieve

them. We not only provide technical training and access to experts in the industry, but training in soft skills in line with our focus on effective communication, Client Service and building agility and resilience.

There are many opportunities for gaining exposure or experience on different projects, in different locations and with different teams. We are seeking graduates who want to try new things and expand their skills and knowledge. There are opportunities for rotations during the program, as well as opportunities once you have completed the program to apply for our Asia Pacific Young Person Exchange program where you can gain 12 months experience in one of our offices across Asia Pacific.

## HOW WE SELECT

Your application for a graduate role will be assessed through a staged approach including an initial application review, telephone interview, online video game testing, and assessment centre / face-to-face interview.

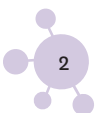
## APPLY ONLINE

[aecom.com/australia-new-zealand-graduate-careers/](http://aecom.com/australia-new-zealand-graduate-careers/)

Applications close  
Wednesday 12 April 2017.

**AECOM**

Built to deliver a better world



**Opportunity, Responsibility and Growth**



**Edwin Nixon**

**BE Hons (Civil) 2015 –  
The University of Auckland**

Working at PDP has been full of variety and challenges that have made my first year go by very quickly. My work ranges from site visits, project management and design work, to construction monitoring and report writing. I enjoy not knowing what the next week of work may bring.

I started at PDP as a graduate engineer and have found the company culture welcoming and friendly. In Auckland we have around 50 staff who are mainly a mix of engineers and scientists. There is a wealth of knowledge about almost anything relating to water, including things such as the Stuff Quiz and cricket! On a serious note, PDP is well known and respected for its expertise in the environmental engineering field.

One of my more memorable first jobs was driving to a quarry in South Auckland to assess the stormwater flow paths and potential flooding at a diesel truck stop. It helped that it was pouring with rain when I arrived. However, it wasn't the best weather for walking around the site and I ended up fairly wet by the end of it! I still find site work interesting and enjoyable as it makes for a good balance between indoor and outdoor work.

Some of the other projects I have worked on involved field work at Omaha Spit and the Whenuapai Airbase. I have also worked on modelling the sea level rise for Auckland Airport. All this has provided great opportunities to use my project management and engineering skills and to do something that is rewarding, especially when the client is appreciative. Good client relationships make all the difference between a hard or an easy job.

I would recommend PDP as a great workplace for interns and graduates, as the company is medium sized and looks after each employee individually. The work teams are usually small enough to be personable and everyone works well together. There are social events organised every month and sports teams with varying degrees of competitiveness. One of my personal highlights would have been taking part in a 42 km mountain bike race and beating all the other PDP mountain bikers!

I think PDP is a very accommodating place to work and it provides many opportunities across the environmental engineering field.

**About PDP**

PDP is an environmental consultancy with over 30 years' experience providing environmental solutions throughout New Zealand, Australia and the Pacific Islands. We are a New Zealand, employee owned company with around 100 people nationwide, working in four offices. At PDP you will be working with other high-calibre Civil and Environmental Engineers and Scientists at all levels, and professionals who are leaders in their field. To find out more of what we do, go to [www.pdp.co.nz](http://www.pdp.co.nz)

We recruit **graduates** and **interns** for our offices in Auckland, Christchurch and Tauranga in May/June.

Talk to us on campus at the **Engineering Career Expo on Tuesday 2 May**.

To learn more, come along to our Presentation Evening on Thursday 4 May at 5.30pm in Lecture Theatre MLT3, Science building 303.

Applications will close on 31 May 2017.

Send your application to: **employment@pdp.co.nz** including your Cover Letter, CV and Academic Transcript.

## MARINE ENGINEERING OFFICER (MEO)

Marine Engineering Officers are the Navy's experts on ship structure, propulsion, power generation, hydraulic, and habitability systems. Marine Engineering Officers on board ship lead teams of skilled hands-on technicians who operate, maintain and repair this diverse range of equipment. The Marine Engineering Officer is the critical decision maker in the ship's response to fire-fighting and damage control.

A diverse range of shore-based positions include management of complex projects, equipment procurement, ship system and physical upgrades and performance analysis. Your career will be managed so that you are rotated regularly through these roles, ensuring you develop a broad understanding of Marine Engineering. Professional development is a key part of a Marine Engineering Officer's career.

**MEO - BE(Hons)** in Mechanical, Mechatronics or Electrical Engineering.  
**BEngTech** in Mechanical or Electrical Engineering.

## WEAPON ENGINEERING OFFICER (WEO)

Weapon Engineering Officers are the Navy's experts in weapon systems, communication, sensors, and combat management systems. Weapons Engineering Officers on board ship lead a team of skilled technicians who maintain and repair the sophisticated equipment that provides our fighting capability.

Weapon Engineering Officers are also involved in complex multi-million-dollar project management, equipment procurement and upgrades, system optimisation, and maintenance planning. Your career will be managed so that you have a comprehensive and full understanding of all the aspects of Weapon Engineering.

**WEO - BE(Hons)** in Mechanical, Mechatronics, Electrical, Electronics or Computer Engineering.  
**BEngTech** in Mechanical, Electrical or Electronics Engineering.

## UNDERGRADUATE - CHATHAM SCHEME

Entrants into the Chatham Scheme are able to study at a university of their choice while the Navy pays for all course fees and a living allowance (approximately \$9,000 per year) and a \$500 textbook allowance. Bonuses of up to \$2000 are awarded for a minimum A-grade average.

There is a year-for-a-year Return of Service attached to this scheme.

## UNDERGRADUATE - TANGAROA SCHEME

Entrants into the Tangaroa Scheme are paid a full Midshipman salary (\$32,000) to study at The University of Auckland, Massey University (Albany Campus) or Auckland University of Technology.

There is a year-for-a-year Return of Service attached to this scheme.

## GRADUATE - AMOKURA SCHEME

Entrants into the Amokura Scheme are able to study at a university of their choice, and on completion of their degree, have their course fees paid back over the same duration as their degree.

There is no Return of Service attached to this scheme.



Year of Service	3 Year Degree (annual sum)	4 Year Degree (annual sum)
1st	\$3,000	\$4,000
2nd	\$6,000	\$8,000
3rd	\$9,000	\$12,000
4th	\$12,000	\$16,000
Total	\$30,000	\$40,000

Entry into RNZN as Midshipman  
**\$32,000 - \$51,000**

Promotion to Sub Lieutenant  
**\$63,000 - \$84,000**

Promotion to Lieutenant  
**\$77,000 - \$103,000**

0 months

6 months

2 years

3.5 years

Junior Officer Common Training

On-the-Job Experience (Ship/Ashore)

Systems Engineering Management Course  
 Portsmouth, United Kingdom

\*The above career progression model is a guideline only - it is subject to the individual's qualifications and aptitude and is also subject to change.

## ENGINEERING OFFICER

You will actively manage the engineering and maintenance of RNZAF aircraft and its mechanical, avionics and armament systems. You will be responsible for the safety, airworthiness, and availability of the aircraft.

You will need to be a flexible, multi-disciplinary leader across all areas of engineering with a keen eye for detail. Engineering Officers work across all engineering disciplines, including the research and development of aircraft, equipment modifications, managing budgets and financial systems, and designing structural repairs. You will monitor engineering standards, manage aircraft maintenance and oversee maintenance of mechanical, avionics, and armament systems. You will be provided with ongoing training to keep you at the forefront of engineering development.

**EO - BE(Hons)** in Mechanical, Mechatronics, Electronic, Electrical or Aeronautical Engineering.  
**BEngTech** in Mechanical, Electrical or Aeronautical Engineering.

As an Engineering Officer you will be employed in a number of areas within the Air Force. These are:

### FLYING SQUADRONS

Each Flying Squadron has a maintenance section led by an Engineering Officer known as the Maintenance Flight Commander (MFC). A large squadron will usually be aided by a junior Engineering Officer. The MFC's role is to manage the day-to-day maintenance of the squadron's aircraft; a combination of both scheduled preventive and routine maintenance, and unscheduled repairs.

### BASE ENGINEERING SQUADRONS

Each RNZAF base has specialist engineering squadrons to perform more in-depth maintenance on aircraft and components. Your work is demanding in terms of engineering knowledge and managing personnel and resources.

On each base, the engineering squadron has a senior Engineering Officer in charge and one or two Junior Engineers to look after various workshops.

## UNDERGRADUATE SCHEME - RUS

RUS is available to Undergraduate and Year 13 students. The Air Force will fund your engineering studies and provide an annual living allowance.

There is a year-for-a-year Return of Service attached to this scheme.

## GRADUATE INCENTIVE SCHEME - GIS

Engineering Graduates and Final Year students are eligible for the Graduate Incentive Scheme. In addition to your normal salary as a Pilot Officer, you will receive annual payments totalling \$40,000 over four years (for a four year degree).

There is no minimum time to serve, or return of service.

Year of Service	3 Year Degree (annual sum)	4 Year Degree (annual sum)
1st	\$3,000	\$4,000
2nd	\$6,000	\$8,000
3rd	\$9,000	\$12,000
4th	\$12,000	\$16,000
Total	\$30,000	\$40,000



Entry into RNZAF as Officer Cadet  
**\$32,000 - \$43,000**

0 months

Promotion to Pilot Officer  
**\$52,000 - \$68,000**

6 months

Promotion to Flying Officer  
**\$63,000 - \$84,000**

1.5 years

2.5 years

Initial Officer Training Course

On-the-Job Experience (Squadron)

General Engineering Officer Training Course

\*The above career progression model is a guideline only - it is subject to the individual's qualifications and aptitude and is also subject to change.

## AT JACOBS, WE HELP PREPARE PEOPLE FOR NEW OPPORTUNITIES AND CHALLENGES.

Jacobs is in collaboration with the Engineering Schools at Auckland and Canterbury University, and has a **First Look** Student scholarship programme.

Successful students are guaranteed work each summer and a graduate position is offered once their degree is completed; where monetary support is also provided.

Consideration is given to applicants who participate in extra-curricular activities, with strong inter-personal skills, as well as academic records, (rather than the traditional academic success only). The programme has now been in place for several years and Jacobs considers it to be an immense success.

High performing young engineers are adding significant value across a number of Engineering disciplines throughout the New Zealand Jacobs offices.

The majority of Jacobs graduates come via the **First Look** programme however, there are still lots of opportunities for other graduating engineers to work for Jacobs.



**RACHEL**  
HOUSTON

- I studied Civil Engineering at the University of Auckland and was fortunate enough to join Jacobs as part of the First Look Scholarship programme in 2013. I completed two internships at Jacobs over the course of my degree, working in both the Civil and Highways teams. This gave me an insight into the different engineering disciplines and allowed me to decide which career path I wanted to pursue.
- I was offered a full time position in the Highways Team in 2016 and **I am beyond glad I accepted this role.** I have been given so many opportunities to gain both technical and project management experience at Jacobs. I have been involved in two expressway tender designs, which has given me great exposure to roading design. I also worked closely with the Design manager on a huge Auckland rail project, which provided me with a thorough understanding of design management.
- After one year of working full time in the Auckland office, I decided to relocate to Sydney. I approached a manager at Jacobs about the possibility of transferring to our Sydney office and within a week I had been interviewed and offered a position. **The ease of transferring offices is one of the great benefits of working at a global company.** Jacobs has over 230 offices around the world, providing endless opportunities for employees.



**JACK**  
LEEVES

- I joined Jacobs at the start of 2016 as a graduate geotechnical engineer and was immediately thrust into the world of major projects and a competitive tender alliance. My first project was to work on a huge Bypass section in the Waikato. Jacobs offers the opportunities to work on projects that significantly vary in size, I have worked on projects as small as a few thousand dollars up to major projects valued at several hundred million dollars. **The variety of work here is incredible.** I have worked on everything from highways to school buildings.
- Jacobs isn't afraid to give new graduates opportunities and responsibilities that other companies often prefer to restrict to senior staff. In a previous job I often found my role and responsibilities restricted and I often had to rely on highly experienced staff to make decisions for me. At Jacobs I have much more personal freedom to solve problems on my own methods under a senior engineer's supervision.
- By far the greatest part of working at Jacobs and in the engineering industry is the people.** This industry has some of the most talented and hardworking individuals who inspire me to always challenge myself. Due to my position at Jacobs, I have worked with a variety of competitor engineers in New Zealand. Being exposed to engineers from different companies is an excellent opportunity to learn from some of the best that NZ and the Globe can offer.



Jacobs prides itself on its Diversity & Inclusion culture. Our value proposition is that by using the views and experiences of many, we engage, inspire, develop and empower our people and drive world-class execution and innovation.



## ROBIN BASRA

- I joined Jacobs for the summer of 2016/2017 as part of the First Look Scholarship programme under the Process Team. So far it has been a **fantastic and challenging experience** that has given me the opportunity to work on several exciting projects while picking up a range of skills along the way. Working on geothermal projects in countries like Nicaragua and Mexico really highlighted the technical expertise that exists within Jacobs.
- The culture, diversity and support at Jacobs is second to none and making my time here all the more enjoyable. Working with a range of extremely capable engineers has been an invaluable experience and has accelerated my development as an engineer. Doing a double degree with finance also gave me a much greater insight into the financial side of the business and emphasised just how important this aspect is to any project. Being a large global company, Jacobs provides the ability to travel and work in a range of different disciplines and countries all around the world. **As I look to transition out of University life, Jacobs provides endless opportunity to develop and gain experience in the real world.**



## CALEB DEVERELL

- I joined Jacobs as a graduate with one year's experience, following a Civil Engineering degree at the University of Auckland. I am currently working as a Transport Planner/Modeller, although I did not start my career in this field.
- I joined Jacobs as a Bridge Engineer. However, I was keen to gain experience in another discipline, and Jacobs provided me with the opportunity to work on a project in the Transport Planning team. **I really enjoyed the project and have since decided to remain the team. I am grateful for the flexibility that Jacobs can offer.**
- With Jacobs being a global company, there are often opportunities to work abroad, either for a short term or long term. I was fortunate to have the opportunity to work on the transport modelling of a proposed motorway section in Adelaide, Australia. This experience enabled me to develop my skills further and gain valuable relationships with overseas Jacobs teams.
- One of the things I've enjoyed the most about Jacobs is the freedom **I have to solve problems independently, as well as the people that I work with always being happy to offer help or advice when I need it.**



## JOEL KAVENGA

- I have been a member of the Jacobs family for two summers now as a participant of the First Look programme. I am grateful for the opportunity to have worked in the Auckland Building and Structures team and have enjoyed the experience thoroughly; this is testament to the **positive and supportive nature of my team and the office overall. The people at Jacobs make the job - they truly are Jacobs' greatest asset.** With fun-loving and warm personalities all about, it isn't hard at all to connect with your colleagues and make friends.
- Learning on the job has been challenging at times, it has pushed me outside of my comfort zone and exposed me to a plethora of issues that only come from real-world engineering. I believe these challenges and the steps taken to resolve each one, have **stimulated my growth in the profession and provided me with a broader sense of what it means to be an engineer.** I have improved my technical knowledge, interpersonal skills and of significant importance to me, furthered my insight into how our world works. I am further privileged to have been given the opportunity to stay on at Jacobs next year, as a graduate engineer. I look forward to the future challenges that this position holds.

## UPDATES FROM OUR 2016 FEATURED GRADS...


**Billy Strachan** - Over the past year I have been involved in a wide range of projects. From being part of the design of a 40m deep pump station to assisting the concept design for redeveloping aspects of a popular zoo, I have gained experience in many different areas. I am building my own network, being the chair for the Jacobs Future Network committee in New Zealand I have developed a number of relationships with Jacobs employees in other offices. I have regular meetings with all of our offices in Australia to discuss career development and how we can continually improve our graduate programme.

**Abel Leenders** - I've been a Jacobs's graduate for a year now, having been offered a job at the end of the First Look program. I primarily work in the building services team. Working in a tight team has given me the opportunity to be involved in all disciplines of building services, not just mechanical, and I have thoroughly enjoyed gaining a working knowledge of a wide range of subjects. I also work with the structural and the water engineering teams, which allows me to get a different perspective and develop my skills. The learning curve is a steep one, yet rewarding. In the past year I've had the chance to do design work on hospitals, a health clinic refurbishment, a hotel, a pump station repair, a zoo, plus many more!

**Fergus Laurensen** - I started working for Jacobs at the start of 2016 in the Bridge Design Team. In that time I've learnt a lot about how the design process is carried out. I've had a range of different structures to work on, including several bridges, and have had plenty of support along the way from the senior engineers. Jacobs is very accommodating in terms of allowing people to work in the way which suits them. For example I work flexi-hours; I start early in the morning and finish early, enabling me to spend more time with my children in the late afternoon. Being a global corporation, there are opportunities to travel and to get experience in other engineering disciplines. I'm about to start on a new Design & Construct project which has a project-specific office; I'm looking forward to the new challenge.

**Tony Fu** - I have utilised my supervision experience to move into design leadership roles, serving as a Bridge Team 2IC on two of our upgrade tender designs. Between the two projects, we have designed a combined fifteen bridges to a preliminary stage. Besides my design roles, I have taken on a technical advisory role carrying out tender evaluations, technical reviews and providing advice to the asset owners on these projects. In just over two years as a graduate, I believe I have obtained a broad range of experience that puts me in a great position to achieve my immediate career goal of gaining professional accreditation. Beyond that, who knows where Jacobs will take me.

**Rachel Arthur** - I moved to the UK to study Engineering for Sustainable Development at the University of Cambridge. I went into engineering in the first place because I wanted to do some good in the world; I was fortunate to work with some fantastic people at Jacobs (namely Andrew Springer, James Muir and Scott Elaurant, yet there were many others) with a strong interest in sustainability and how engineers can use their jobs to make a difference. Moving to the UK was a lot less intimidating than it could have been because I knew many engineers at Jacobs, so I got lots of good advice from them. Sustainable development is about making sure we aren't hurting future generations by our actions today; it includes social justice, environmental protection, and long-term thinking. I'm learning something new every day, why cultural differences are important, what I don't understand about international aid, how the economy really works, why architects are not the enemy, what water infrastructure should look like in the future, why we need to challenge the car-centric mentality, and lastly, how to make infrastructure beautiful.



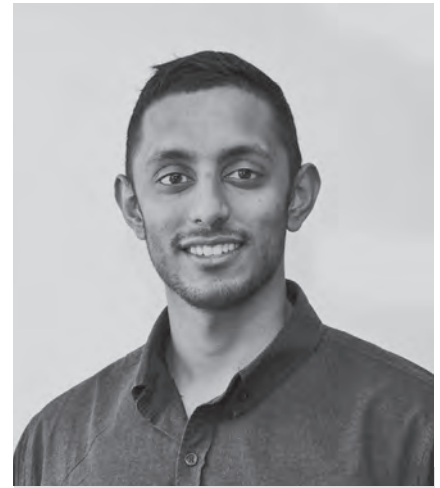
**“ One of the best things about Holmes is you get to work on live projects from day one—with all the help and support you need along the way.”**

**Kiran Makan**

The Majestic Centre, Wellington



# Engineer Your Career



**Kiran Makan**

Design Engineer  
Bachelor of Engineering (Hons) 2014

Growing up on a farm, I was always interested in building and fixing things, including playing with Lego, KNEX and Capsela. We had plenty of tools and materials about, so I graduated from toys on to building other bits and pieces around the property. I remember talking with my brother about the great grandstands at the 2008 Beijing Olympics, so that engineering mind-set definitely runs in the family. **It was my high school physics teacher who pointed me in the direction of structural engineering**, and I was attracted to a stable career where—if you put in the hard work—you'll prosper.

Having met some Holmes people at a graduate presentation at Auckland University, **I was keen to join a company with such great heritage and projects.** After I graduated, I was open to working in Auckland, Wellington and Christchurch, and an opportunity came up in the Wellington office. Wellington was perfect for a change of scene, and for all of the great engineering challenges in a city with very real seismic challenges. It's been a great move, and I've never looked back.

One of the best things about Holmes is you get to work on live projects from day one—with all the help and support you need along the way. In the beginning I felt a bit nervous asking questions, but **I soon learnt that everyone is willing to help**, and even the most experienced senior people are generous with their time. It's a really open environment with lots of opportunities to learn from great people who have the experience and knowledge.

Day-to-day, there's plenty of variety in my work. **I get involved in design, analysis, construction monitoring, and liaising with a range of project partners**—architects, contractors and clients. I've worked on a number of really high-profile projects, including the seismic assessment and strengthening of P56, the Majestic Centre, the seismic retrofit of 157 Lambton Quay, and the Town Hall development. Across these projects we've used incredible technology and techniques, including Non Linear Time History Analysis and a suite of other advanced programmes.

Structural engineering isn't all about theories and calculations. **I love getting out to project meetings and sites in the real world**, then refining designs to ensure they're efficient, buildable—and commercially sound—when they come to life. We design with a wide range of materials and systems, so there's always something new to explore and learn.

**Outside of work, we have a great time.** We've got plenty of social events to look forward to, like work functions, pub quizzes and lunches in the sun, to name a few. There are a number of social and serious sports on offer as well. We have annual ski and cycle trips if you're interested, and there are always people looking to go for a run or a walk most days. The culture is relaxed and open, so we have lots of laughs along the way. I've loved working at Holmes—the combination of brilliant projects, great people and a fun environment make it a great place to design a career.

Join us at the Auckland University careers evening on Thursday 30 March 2017, or apply for graduate or summer intern positions at [www.holmesgroup.com](http://www.holmesgroup.com)

**Holmes**



# WANT TO WORK FOR A COMPANY THAT CREATES SOFTWARE FOR THE WORLD'S BEST CINEMAS?

Vista Entertainment Solutions is the world leader in cinema management software. With an estimated 38% global market share, our set of integrated and scalable software modules are installed in cinemas worldwide. We live and breathe cinema, and are at the heart of the publicly-listed Vista Group of companies that offer solutions across the wider film industry.

Our success is directly linked to our employees' success. We have a very loyal team, with many being part of Vista for more than a decade. We offer a collaborative workplace and encourage staff to share their views and experiences. We need more talented staff to continue to deliver on our mission to enhance the cinema experience for all. With offices in Auckland, Los Angeles, London, Cape Town, Beijing and Shanghai, and software installed in more than 60 countries, Vista provides a wide range of opportunities for career growth and travel.

There are loads of learning opportunities at Vista. Our training schedule is filled with opportunities for our newbies to arm themselves with all the tools they need to get going. There are also regular knowledge sharing sessions throughout the year. In addition, we hold an Innovation Cup to encourage companywide collaboration on creative ideas and solutions to our products and processes.

Jay Kim and Ocean Wu are Software Developers who started as graduates at Vista. Jay also completed his internship at Vista in 2015.

## HERE'S WHAT OUR GRADUATES OCEAN AND JAY SAY ABOUT VISTA:



Ocean Wu



Jay Kim

### What do you like about Vista?

**Ocean:** I feel well supported by working in a small team with lots of experienced, Yoda-like developers. I enjoy working according to the agile methodology my team has adopted, which enables fast delivery and rapid development cycles. There's a good team culture, lots of cat memes are involved in everyday communication and there are many good football and table tennis players!

**Jay:** Everyone at Vista is awesome and easy to approach, always ready to help you out. The company has a very open-minded culture and continuously looks for ways to grow your skills, whatever your role is. Not every company would let a grad present at a customer conference.

### What do you like about your role at Vista?

**Ocean:** My everyday work is not only about solving a problem, but also looking for the best solution for that problem. I'm getting plenty of time to craft my solutions, I'm receiving support from experienced developers, and baking the best practices into the codebase. Detailed feedback from every code review is turning me from a code monkey into a real programmer. Rather than being a maintainer for the codebase, the codebase is both a friend and a mentor which helps me grow.

**Jay:** It's hands-on from day one. Take a couple of training sessions and you'll find yourself writing your first line of code in no time – code that has the potential to impact in a positive way at least 38% of cinemas in the world.

### Any advice for students considering a future in Software Engineering?

**Ocean:** If you haven't made up your mind, just give it a go and take compsci101. No matter what you have decided, a coding skill will always be as useful as a Swiss Army knife. Happy hacking!

**Jay:** Code, code and code. Vista actively looks for star interns as well as grads. Interns aren't given boring projects that the full-time developers don't want to do. In fact, I think the interns get some of the best projects. I worked on an R&D project for Android and iOS using beacons and other interns have worked on various projects, some of which are live and being used by customers around the world. You even get to present your project to some of the executives at the end (and they love it).

Vista has graduate and internship opportunities for Developers, Test Analysts, Services Consultants and Business Analysts. To register your interest and for more information visit us at [www.vista.co/en/careers](http://www.vista.co/en/careers)

RIGHT ON TRACK:

# TRAFFIC & TRANSPORT CAREERS WITH TDG



PARAG



ATHUL



AKAASH

**TDG is a specialist traffic and transportation engineering design firm with nine offices throughout New Zealand & Australia. Here we talk with three of TDG's grads who are working in the Hamilton, Wellington & Christchurch offices.**

TDG is looking to fill grad roles right now! If you're interested in knowing more visit [www.tdg.co.nz](http://www.tdg.co.nz) or follow us on Facebook, Instagram or LinkedIn. No need to wait – we have places needing to be filled straight away.

Let's chat with Parag Gupta (TDG Hamilton), Athul Harris (TDG Christchurch) & Akaash Nanda (TDG Wellington).

Akaash, Athul & Parag all joined TDG late 2015 / 2016 through our Graduate Recruitment programme, and all studied at the University of Auckland.

Akaash & Athul both have a Bachelor of Engineering with Honours and Parag has a Master of Engineering Studies in Transportation Engineering. Here they answer a few questions about themselves and life as an engineer.

**TDG: Hi guys, thanks for taking the time to answer some questions for our grads ☺ And for being part of the TDG family!**

**TDG:** Firstly, what's the best thing about the city you live in?

**Parag:** Hamilton is one of the fastest growing cities in NZ and yet it hasn't given-in to the hustle and bustle of a city life, there's still plenty of nature to admire, not to forget, the mighty Waikato River and really good food. But if you still feel that you're missing out on the "city" life of Auckland and all the noise that comes with it, well it's only 90 min drive away.

**Athul:** Christchurch has so many awesome outdoor activities, all close by – mountain biking and the ski field.

**Akaash:** Everything in Welly is so close! I live in Te Aro and all the cool hipster bars are within walking distance.

**TDG: How about the TDG office?**

**Parag:** We're in the heart of Hamilton City, and all the amenities, all the awesome cafes & restaurants and Centre Place mall are just a stone's throw away.

**Athul:** Our new Christchurch office is right in the middle of the city, literally in the middle on Cashel Mall!

**Akaash:** I love the drive in and out of work along the scenic Wellington Harbour (our office is in Lower Hutt). You know what they say "You can't beat Wellington on a good day!".

**TDG: How do you get to work? (Important question for a transport engineer!)**

**Parag:** I walk – takes about 13-15 minutes (approximately!).

**Athul:** I bike or take the bus – easy in Chch

**Akaash:** I drive from Wellington Central to the Hutt (against the traffic) – 20 mins

**TDG: What's the most interesting project you've worked on at TDG?**

**Parag:** A large private development which is older than my career history at TDG! I had to write up an ITA (Integrated Transportation Assessment) only 3 months after I had joined the office, so it took pretty much everything I had and used every nerve in my brain. But it was good experience and the advice I got from senior colleagues really helped me through.

**Athul:** Car Distribution Group with Tony Penny

**Akaash:** Engineering Reports on the Digital Billboard conversions we're doing for APN. It's so cool to see NewYork-esque billboards popping up all around the city!

**And, final words: what would be the one piece of advice you would give to an engineering student considering traffic & transport as a career?**

**Parag:** Traffic & Transport is an ever growing industry, as long as there will be development in this world, there'll always be a need for Traffic Engineers. Look around yourself and be a little more observant towards things in your surroundings and try to find logic behind everything. It's good to have theoretical knowledge of how things work, but what's important is to have an aptitude and an understanding of what the issue is, it's all about the logic. No idea is a bad idea, list down whatever you can think of and then weigh their pros from cons.

**Athul:** Always take a systematic approach so you minimise your chances of missing something in an assessment.

**Akaash:** Enjoying your work is important, so you've got to enjoy Transport if you make that choice!

Want to know more about being part of the TDG family? Last year we celebrated 40 years in business so we filmed some of our people talking about what it's really like to work here.

Or if you follow us on Facebook & Insta we regularly post photos of our teams doing fun stuff ☺

[www.tdg.co.nz](http://www.tdg.co.nz)

[trafficdesigngroup](#)

[trafficdesigngroup](#)

[Trafficdesigngroup](#)

## Meet Mohammad Alshami, civil engineering graduate turned Beca Project Manager

### What I do at Beca?

I started at Beca just over a year ago as a full time Assistant Project Manager in the Project and Cost Management team. I come from a Civil Engineering background, having completed my Bachelor of Engineering (Hons) at the University of Auckland. I undertook some project management courses as part of my bachelor's degree that taught me how the principles of engineering can be applied in management of projects. After graduating, I reflected on how much I'd enjoyed project management. So I decided to complete a Master of Engineering degree in project management.

At Beca we make things happen, we take ideas into reality! Put simply, this means we help our clients and stakeholders realise their visions and aspirations.

A lot of what I do involves supporting project managers and directors in leading multidisciplinary project teams to deliver the client's desired project outcomes. Every day comes with new challenges and new problems to solve. This means each day of my graduate career I am exposed to different aspects of project management and engineering

### Exciting projects, amazing experience, great future! I play a key role in some exciting and unique projects.

Working with Auckland Zoo has been the highlight of my first year at Beca. The Zoo has great aspirations for their future growth and is a strong advocate for animal conservation. They have established a 10 year Master Plan to update its animal exhibits and infrastructure in order to improve animal welfare and visitor experience. The project I am involved in looks at creating a number of exhibits as part of the new South East Asia Precinct, which is their largest capital project in the Master Plan. The Precinct will be the new home for the Sumatran Orangutans, Tigers, Siamangs, Otters and the Tomistoma. Not to mention the new landmark restaurant at the heart of the Zoo! The Precinct is a predominantly engineering and civil project with multiple dependencies and constraints.



Engineering elements include site ground conditions, storm and waste water treatment and life support system requirements for the animal exhibits, just to name a few. Here is where my engineering background is most valuable! As a civil engineer, I am able not only to understand, but streamline the different engineering design elements with the project management requirements to facilitate the successful delivery of the project.

### What does it take to be a Project Manager?

The ability to have a big picture perspective is key!

People skills, resilience and the ability to manage multiple stakeholders.

Not to mention the technical competencies in managing risk, contracts and so on.

At Beca, we **make things happen!**

The best thing at Beca is the culture and people. It's a place where everyone has each other's back, trusts each other and helps each other to excel in their career.

As one of the largest New Zealand consultancies, we work in a wide range of different fields and industries. When I

completed my studies, I had the option to choose between different companies that were respected in New Zealand and internationally. I chose Beca because of the culture, people, opportunities I would be exposed to and the diversity of projects I would work on during my graduate career.

I love my job, and I enjoy the huge range of projects I get to work on. My advice to graduates is to keep an open mind to the different careers engineering can lead you to, and don't be afraid to take on new challenges and opportunities as they come.

#beyourfuture

[www.beca.com](http://www.beca.com)

[www.linkedin.com/company/beca](https://www.linkedin.com/company/beca)



## Tamoko Ormsby

Second year engineering graduate at Auckland Council

### Tell us about your journey to the council / your background.

Kia ora whānau! My name's Ta (short for Tamoko-o-te-Rangi, but I'm known as Ta) and I joined Auckland Council in 2016, and am now in the second year of my graduate programme.

I was born and raised in the beautiful Waikato in a town called Ngāruawahia. World renowned for its mussel fritters and bacon & egg rewana burgers, it's also home to Kingitanga – the Māori King Movement.

One of the biggest reasons I chose the council is that Māori values are actively integrated at the council and mana whenua engagement is a crucial aspect. Being Māori, this really resonated with me.

### What did you study and why?

I did my first year of study at the University of Waikato and then transferred to the University of Auckland. I chose to study there because of the fantastic support available for Māori and Pacific engineering students. And of course, Auckland has so many places to explore and new places to eat out at! I was initially unsure which engineering specialisation I wanted to do but I'm quite happy I landed in Engineering Science because I get to help solve real world problems using maths which is really exciting.

### What interests you about the field of engineering?

I have a deep passion for seafood – I love kina (sea urchin) and as it so happens I also enjoy the 'art of numbers'. Problem solving is also fun for me, I'm always on the hunt to figure out a solution to life's many challenges such as figuring out the fastest way to my local super market or what the difference between a muesli bar and a slice of chocolate is. Engineering is fun because it gives me the chance to embrace my passion for solving the many problems and challenges that come up in life.

### Why did you choose our graduate programme?

The transition between university and the workforce can be tricky – kind of like playing darts with spaghetti. I chose the council's graduate programme as I saw it as an awesome opportunity to gain support during this transition and because I knew I could contribute to making Auckland a better place to live. The rotations we go through during our initial two years here give us rapid exposure to the different aspects and teams and the chance to learn how they interact.

### What was your first rotation like? What have you been able to do since you started here?

I'm in a uniquely cool situation where another graduate in my team and I are able to rotate through different teams during the week. We spend three days in design and technical guidance, and two days in stormwater operations. In the short time I've been on the programme I've already been involved in shaping stormwater management across the Auckland region, engaging with mana whenua, and going out to stormwater sites to check for blockages and failures. So far, so good!

### Do you have a favourite story/memorable experience?

My first mana whenua engagement hui was great! Seeing how it all unfolded between the council and mana whenua. Once they knew I was Māori though, the most common line was 'get the graduates to do that'. I had to learn a lot really quickly.

### What's your favourite thing about engineering?

My favourite thing about engineering is finding out when we don't know anything about something.



## Linlee Tram

Former Building Control graduate at Auckland Council

With a Bachelor of Civil and Environmental Engineering under her belt, Linlee joined the graduate programme at Auckland Council in 2014. Linlee tells us more about her experience.

"Over the past two years I've had the opportunity to rotate through nearly every team in Auckland Council's building control department.

It was an amazing opportunity and has given me access to knowledge and experience in all the different areas.

About halfway through the programme I travelled to Wellington and spent two weeks working at the Ministry of Business, Innovation and Employment (MBIE). MBIE writes most of the guidelines and legislation that Building Control follows and enforces so it was awesome to gain high-level insight and see the bigger picture.

Having completed the graduate programme, I have gained a solid foundation for my career. I definitely recommend Auckland Council's graduate programme and am looking forward to the challenges and opportunities ahead."

**Applications for our 2018 engineering graduate programme are open from 24 April to 14 May. Visit [aucklandcouncil.govt.nz/graduates](http://aucklandcouncil.govt.nz/graduates) for more information and to apply.**



### Dylan Snow, BE (Hons) Electrical and Electronics Engineering

I graduated from the University of Auckland in May 2015. Prior to joining Cubic I had some work experience in research and development on prototype electrical transmission line fittings and database software development across several tech companies in Auckland. While this work was interesting, I was always looking for something better that could leverage the experience I had gained creating a telepresence robot in my last year of university. It was this search that led to me finding my current position as a Graduate Software Engineer with Cubic Defence NZ Ltd. in April 2016.

I started as the first member of a new innovation team working exclusively on Augmented Reality (AR) technologies. Cubic's work in the live training space ("laser-tag" style embedded and application level software and hardware for multi-day military training exercises), made AR technology the next logical step for Cubic to enhance their training offerings.

Needless to say, it is an incredibly exciting and enjoyable field to work in. The work I have and continue to be involved in is always at the cutting edge of what is possible. The company sponsors visits to scientific and technological or consumer product conferences across the world so we stay ahead of the cutting-edge technologies. In my 12 months at Cubic, I have been on business travel three times: to Orlando, Florida; Boston, Massachusetts; and Mexico which is an added bonus.



CDNZ custom furnished workspace

Competition is strong, so there is significant research on new products as well as on maintaining professional and robust code for real-world deliverables. Cubic has positioned itself well to deliver some incredibly meaningful content with truly normative potential for changing behaviour using AR experiences. I am really happy to be leading that effort technically.

Cubic's greatest asset is its people. There are many here who rally enthusiastically behind the idea of making the world a safer place, and who are also technical or business gurus that can actually achieve that. When you have the chance to talk to customers from across the world who genuinely feel they can perform better, complete military operations faster and get home safer because of the equipment Cubic provides them with, it is truly humbling. It just so happens that that work involves so much innovation and great technology, that the work is rewarding in and of itself. Cubic has done so much for my personal and professional development that I can strongly recommend working here to any engineer, young or old.

*Dylan is one of many graduates employed by CDNZ over the past few years. All are taking part in a mentoring programme aimed at helping graduates transition from student-life to work. In addition, five third-year engineering students worked as summer interns on designated projects, which they found very absorbing over the recent summer holidays.*

### More about Cubic Defence New Zealand

Cubic Defence New Zealand Limited (CDNZ) is a high-tech engineering company that designs, manufactures and sustains live ground training systems for defence and security forces internationally.

Our business focus is on providing a realistic immersive training experience, supported by real-time performance monitoring to enable our customers to improve their training outcomes. CDNZ has nearly three decades of domain experience with a team of 160 personnel in Auckland.

CDNZ is a subsidiary of Cubic Corporation, a global leader in defence and transportation systems and services with offices worldwide.

#### CDNZ Achievements:

**Ranked #1 Small Medium Enterprise 2016 in Australia/NZ by the Australia Defence Magazine**

**Ranked 19th out of top 200 in the 2016 NZ Technology Investment Network (TIN)**

**Listed 6th among the Top Ten Companies to Watch by TIN**

[www.cubic.com](http://www.cubic.com)

Email: [cdnzcareers@cubic.com](mailto:cdnzcareers@cubic.com)

# McConnell Dowell

**Grads join McConnell Dowell for lots of reasons. Often, they start with us as an intern and return when they finish their degree. What is it that attracts them?**

## Here are a few reasons

- Large scale multi-disciplinary projects across New Zealand and the Pacific.
- The backing of a multinational organisation.
- A values-based culture that prioritises safety and cares about people.
- Opportunities to work in locations 'away from home' - around NZ or overseas.
- Seeing the full picture, with work on site and in the office.
- Plenty of training and development.
- Support to get chartered.

As grad Site Engineer Jason puts it "McConnell Dowell is large enough to be involved in leading projects such as Waterview and the City Rail Link, but still places a high value on its employees. There is potential to work on a wide variety of different projects and roles."



**Meet Michael**

Michael is a very recent arrival at McConnell Dowell, having finished his Honours degree in Civil and Environmental Engineering at the University of Auckland in 2016 and starting work with us straight away. He already has experience on two of the biggest infrastructure jobs in New Zealand - a summer internship at Waterview and now his first grad assignment on the City Rail link site.

### What do you do at McConnell Dowell?

I'm an Instrumentation and Monitoring Engineer, which means I keep an eye on the settlement data collected by the monitoring instruments on the buildings and ground near our excavation works. If there's any significant movement, I have to figure out what to do about it, which may involve changes to the methodology of how the job is performed or sending alerts to Auckland Council and our client, Auckland Transport. I also help out the

project engineers with anything and everything - checking reinforcing cages, making sure we have all the right permits to carry out work, updating Construction Execution Plans and creating Job Safety and Environmental Analyses are some of the things I've worked on.

### What do you like about your job?

Compared to my internship at Waterview, which was on the quality documentation side of things, I really enjoy the practical, hands on learning that comes with being out on site. You get a better feel for what the project's about. My role has been really diverse from the beginning - no day is the same and my work means I work with heaps of different teams. Everyone I work with is really friendly - even though they're busy, they don't mind answering questions and helping me out when I get stuck.

### Have you had any pleasant surprises?

I wasn't expecting to have so much responsibility so early on. They believe you are capable of doing what you are assigned, and trust you to get it done. I've also been involved in meetings with the client, engineering designers and major stakeholders, which is another example of the trust I'm given.

### What's good about working at McConnell Dowell?

McConnell Dowell has a great working environment - a positive culture and nice people to work with. There's a lot of support available - a lot of training and mentoring is provided by the company and they will help to work towards your CPEng.

### What advice do you have for grads interested in construction?

You need to be prepared to work hard and be organised - the days are long but they go quickly because you're so busy. Keep positive, treat feedback as a learning opportunity and keep an open mind.



Lower Hatea Bridge, Whangarei

## What makes a good McConnell Dowell person?

We're practical sorts at McConnell Dowell, and not averse to a bit of adventure. Our story started over 50 years ago in New Zealand when Malcolm McConnell and Jim Dowell reckoned they could do things better. Over the decades, we've built a reputation for taking on the complex jobs.

We chose 'creative construction' as our tagline for a reason - many of our people could tell you a story or two about the 'creativity' required to get the job done on a remote Pacific Island, or in a badly earthquake damaged city.

McConnell Dowell people are resilient and tenacious, practical and hands-on, flexible and multidisciplinary, innovative, hardworking and down to earth. They understand the value of teamwork, look out for their mates, share learnings and ask for help. They're not daunted by the big jobs or the small details. They could be asked to go anywhere - from a few weeks to a few years.

Like we said - adventurous. Are you?



Pukapuka Solar Power Project, Cook Islands

## Find out more

Come and see us at the Engineering School Careers Day on 2 May 2017, 10.30am - 2.30pm

[www.mcconnelldowell.com](http://www.mcconnelldowell.com)

[twitter.com/McConnellDowell](https://twitter.com/McConnellDowell)

[linkedin.com/company/mcconnell-dowell](https://www.linkedin.com/company/mcconnell-dowell)

## Apply

- Applications for graduate jobs are open from April - May.
- Applications for summer internships will open in June.

Set up a job alert on our website to be notified when the jobs are listed.



# DOWNER YOUR FUTURE

Kick-start your career with Downer. We offer a comprehensive graduate programme, hands-on summer work experience and a selection of scholarships that will help you acquire the experience you need to succeed in the industry.

We're a company who is interested in you as a person and will support you in many ways. Your academic transcript is only part of what we look at.

We are looking for future leaders who want to own their career, own the journey. To find out more about our Young Professionals visit [www.downercareers.co.nz](http://www.downercareers.co.nz)



**Aimee is a Graduate Engineer currently working at City Rail Link (CRL) here in Auckland.**

#### **AIMEE**

Graduate, University of Auckland

The Downer Graduate Programme has been all hands on deck from day one. You get to see a complete picture of what contracting is like. It's been really rewarding and I've learnt so much from the experience.



**Havea was a summer intern with us and is now a Graduate Engineer working on the Chatham Islands.**

#### **HAVEA**

My biggest challenge is having confidence. Confidence to take charge and make crucial calls; have challenging conversations with subcontractors and owning the planning side of things. Being a graduate I've learnt I'm not just there to observe and learn from others. It's rewarding to step up.

**Sam was a Scholar and is now a Graduate Engineer working in Projects.**

#### **SAM**

Graduate, University of Auckland

Since joining the Downer Graduate Programme, I've already been given the opportunity to take the lead on the City Rail Link works. Everyone's passionate about their work at Downer, and they've been very supportive of me as a new grad.

