THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Software Engineering

COMPUTING & MATHEMATICAL SCIENCES
ROROHIKO ME NGĀ PŪTAIAO PĀNGARAU

Software Engineering

Software Engineers specify, design and build the software that society relies on.

Aside from the traditional computer applications in finance, inventory and database, a huge range of devices depend on computer software. Industrial robots, smart phones, cars, ATM machines, DVD players, computer game consoles and security systems are all driven by software. That software must be reliable, flexible, usable and cost effective – we expect it to operate correctly at all times.

Building and maintaining the traditional applications and also the programs that drive these newer devices, all require Software Engineers.

Bachelor of Engineering (Honours) benefits:

Our work placement scheme means that you'll leave university with 800 hours of paid work experience.

The BE(Hons) papers emphasise innovation and practical business skills, so you'll have the background to be an entrepreneur as well as an inventor.

You will gain a highly marketable qualification in what is projected to be one of the fastest growing occupations over the next decade.
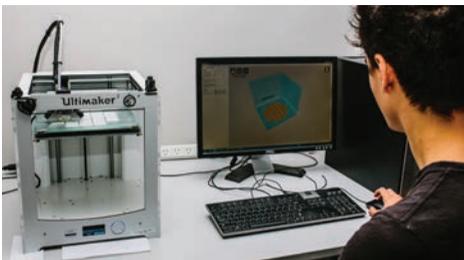
Software Engineering at Waikato

The Software Engineering programme at Waikato emphasises the software engineering process, formal methods for software engineering, and human-computer interaction.

Our goal is to teach you how to build software that is dependable and economic. Our papers include systematic techniques to test software systems and methods for formally proving safety critical systems.

Our BE(Hons) in Software Engineering is an innovative four-year degree that starts with C# programming and building model boats in the first year, progresses through advanced programming techniques and computer hardware labs in the second year, then branches out into a wide variety of programming skills in the third and fourth years. You'll also study design, marketing and engineering management.

Our Software Engineering degree is fully accredited by the Institution of Professional Engineers New Zealand (IPENZ), which benchmarks New Zealand Engineering degrees to international standards. IPENZ accreditation means that your degree will be recognised by engineers and employers worldwide.

Entry requirements

To be eligible to apply for the BE(Hons) Software Engineering, you must gain University Entrance, including a minimum of 16 credits in NCEA at Level 3 in Calculus and at least 14 credits in NCEA at Level 3 in two other approved subjects.

Job opportunities

The skills students will gain from this programme can lead to work in a variety of roles including:

- Network Engineer
- Product Development Engineer
- Software Architect
- Software Consultant
- Software Developer
- Systems Engineer
- Test Engineer

ALENA CHOONG

BE(Hons) Software Engineering

Software Developer, Smartrak

I grew up playing computer games and when I decided to pursue software engineering I came in to it thinking that I was only going to make computer games once I graduated. What I really liked about the software engineering programme at Waikato University was the breadth of computer science topics taught. Whilst I was studying, I thought it was a shame that you couldn't pick any electives until fourth year - but after my first work placement at the Bay of Plenty Regional Council, I realised that the degree structure at Waikato prepares you to become an engineer fit for any industry

I am currently working at Smartrak where I help create and maintain software used in tracking and aiding over 23,000 assets across Australasia each day. I go to work everyday excited to work with intelligent and creative people on various projects to help customers make smart business decisions remotely. I absolutely love my job and am happy that I chose to study at the University of Waikato.

Some great reasons to study with the Faculty of Computing and Mathematical Sciences:

- Our computing and mathematical science papers are relevant and up-to-date in what is a rapidly changing technological and social environment
- You will have 24 hour access to computer labs, including dedicated Apple Mac-based design labs
- You can join CS³ (Computer Science Student Society), a club run for Computer Science students by Computer Science students
- Waikato is recognised among the world's best, with a top 200 ranking for Computer Science (QS subject rankings 2015).

Scholarship information

Each year we offer up to ten $5,000 Computer Science Undergraduate Scholarships to students beginning study at the Faculty of Computing and Mathematical Sciences.

This scholarship is awarded based on the results of a competitive exam and is open to Year 12 and Year 13 students only. Visit **cms.waikato.ac.nz/study-with-us/scholarships** for more information.

We also recognise our top enrolled students. Each year we present **Dean's Awards** to the best ten students at each level, enrolled in an undergraduate degree in the Faculty of Computing and Mathematical Sciences.

Contact us

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WHERE THE WORLD IS GOING
TE AHUNGA O TE AO