THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

# Careers in Technology

# What is Technology?

**Look around you. Technology is everywhere. It helps you stream music, connect with friends across the world, track your fitness or navigate to new places. But behind every app, device and digital service is a team of people solving problems and building smarter solutions.**

Technology is about much more than screens and gadgets. It is about using creativity, logic and curiosity to invent tools that help people and improve the world we live in. Tech professionals combine deep technical expertise with design thinking and collaboration to tackle challenges big and small. From artificial intelligence and cyber security to data science, robotics, software development and user experience design, they are driving change across every industry.

And the impact is growing. Technology is transforming the way we live, work and interact – from healthcare and education to business, entertainment and everyday life.

Demand for digital skills has never been higher. Australia's tech workforce is projected to grow to 1.2 million jobs by 2030, making it one of the fastest-growing and highest-paid industries in the country. Tech is now Australia's seventh largest employing sector, with demand for digital expertise growing across every state, territory and industry *(Tech Council of Australia)*.

At its core, technology is about shaping the future – and at UQ, you can choose a pathway that matches your strengths and passions. Whether you are drawn to deep technical problem-solving, creative design, human-centred innovation or building systems that work reliably at scale, there is a technology career for you. And this is just the beginning.

# Your future, by the numbers

**Australia's technology sector continues to thrive, offering dynamic, high-impact, and future-focused career paths. Whether you're passionate about innovation, problem-solving, or making a real difference in society, a career in tech offers exciting opportunities across every industry. Demand is growing.**

## Tech jobs are booming – and they're hiring

- Technology is now Australia's third-largest industry by value, contributing $167 billion to the economy annually and employing 980,506 Australians — or 1 in 15 working Australians. *(Tech Council of Australia, 2025)*
- Australia's tech workforce is projected to grow to 1.2 million jobs by 2030, making it one of the country's fastest-growing and highest-paid industries. *(Tech Council of Australia, May 2023)*
- Queensland tech workforce expanding from 140,000 – 180,000 by 2030. *(Tech Council of Australia, 2025)*
- Job vacancies: Over 9,500 technology roles currently advertised nationally. *(SEEK, accessed July 2025)*
- Approximately 1,080 graduate positions open in the tech sector. *(SEEK, Grad Connection, accessed July 2025)*
- Artificial Intelligence is anticipated to create up to 200,000 new jobs in Australia by 2030, necessitating a 500 per cent increase in the AI workforce. *(Tech Council of Australia, 2024)*
- The average salary for tech roles remains high, at approximately $132,000, positioning tech careers among the top earners in the country. *(Tech Council of Australia, "Tech Jobs Update" report 2023)*
- Cybersecurity Analyst topped LinkedIn Australia's Jobs on the Rise 2024 list, reflecting its critical importance across all industries. *(LinkedIn, 2024)*
- Data Scientists and Machine Learning Engineers are among the most sought-after roles in 2024, with strong demand across banking, government, mining, and retail sectors. *(Analytics Insight, "Top 10 Most In-Demand Tech Jobs in 2024," 2024)*
- Cloud Architects and DevOps Engineers are critical to digital transformation efforts, with Cloud Architects earning up to $280,000 annually. *(Australian Computing Society, "2024 ICT Salary Survey," 2024)*
- Demand for UX design is growing across sectors as traditional banks, healthcare companies, and government agencies invest in more user-friendly and digitally enhanced services. *(UX Design Institute, "The Future of UX Design in Australia", 2024)*

## Role in the Broader Economy

- Approximately 62 per cent of tech professionals are employed in non-traditional tech sectors such as retail, banking, mining, and professional services, highlighting the pervasive need for digital skills across industries. *(Tech Council of Australia, 2024)*
- The Brisbane 2032 Olympics are set to create a huge boost in tech-related jobs, such as software development, cybersecurity, and IT support. With major infrastructure projects for the Games, there will be significant demand for skilled professionals in these areas, offering exciting career opportunities. *(Queensland Government, 2032 Delivery Plan, 2025.)*


## Top-paying roles for 2024-2025

- CIO up to $375K
- Projects Director up to $300K
- Data Architect up to $250K
- Development Manager $250K

*(Australian Computing Society)*

## Entry level roles for 2024-2025

- UI/UX Designer starting at $100k
- Full Stack Dev starting at $120K
- Front End Dev starting at $90K

*Hays Salary Guide FY24/25 (for roles in QLD)*

# Discover your options

## Content and Design

| I like... | My degree options | My speciality | I could be a... |
|---|---|---|---|
| + Developing apps or websites in tech clubs<br>+ Being creative<br>+ Organising virtual events or online study groups<br>+ Joining student clubs and committees<br>+ Working on art projects<br>+ Playing puzzles or strategic games<br>+ Presenting complex topics in an easy way<br>+ Building and programming robots<br>+ Working in a team to solve complex problems<br>+ Working with people to create technology | **Bachelor of Information Technology**<br>User Experience Design<br>**Bachelor of Design**<br>Information Environments | **Creative Content and Communications** | + Graphic Designer<br>+ Digital Marketer<br>+ Digital Strategist<br>+ Design Manager<br>+ Digital Media Manager<br>+ Product Designer<br>+ User Experience (UX) Designer<br>+ User Interface (UI) Designer |
| | | **Product Design**<br>**Web and Mobile Design**<br>**Wearable Technology, VR and AR** | + Web Designer/Developer<br>+ App Developer<br>+ E-Commerce Specialist<br>+ User Interface (UI) Designer<br>+ Front-End Developer<br>+ Game Developer<br>+ User Experience (UX) Designer<br>+ Project Manager<br>+ Interaction Designer |

## Technology Services

| I like... | My degree options | My specialty | I could be a... |
|---|---|---|---|
| + Taking apart and assembling computers<br>+ Taking on challenging projects in STEM classes<br>+ Creating student surveys and analysing the data<br>+ Joining a coding club<br>+ Exploring different operating systems<br>+ Taking on leadership roles in clubs or teams<br>+ Automating tasks to make assignments easier<br>+ Getting involved in cybersecurity competitions | **Bachelor of Computer Science**<br>Cyber Security or Scientific Computing<br>**Bachelor of Computer Science / Master of Cyber Security**<br>**Bachelor of Information Technology**<br>Software Design or Software Information Systems<br>**Bachelor of Engineering (Honours)**<br>Software | **Systems and Networks** | + Cloud Specialist<br>+ Systems Administrator<br>+ IT Consultant<br>+ Software Engineer<br>+ Systems Performance and Resilience Engineer<br>+ Systems Designer<br>+ Game Developer<br>+ Site Reliability Engineer<br>+ Network Engineer<br>+ Applications Developer |
| | | **IT Security and Forensics** | + Digital Forensics Investigator<br>+ Ethical Hacker<br>+ Cyber Security<br>+ Systems Administrator<br>+ Specialist<br>+ Application Security Specialist<br>+ Security Architect<br>+ Security Analyst Certificate Authority Consultant |

## Business Services

| I like... | My degree options | My speciality | I could be a... |
|---|---|---|---|
| + Working on school IT projects<br>+ Volunteering for community service projects<br>+ Participating in debate club or mock trial<br>+ Creating online schedules for your study group<br>+ Organising school parties, fundraisers, or club activities<br>+ Creating feedback surveys for school events or publications | **Bachelor of Computer Science**<br>Data Science<br>**Bachelor of Computer Science / Master of Data Science**<br>**Bachelor of Information Technology**<br>Software<br>Information Systems | **Data Management and Analysis** | + Security + Privacy Engineer<br>+ Business Analyst<br>+ Data Scientist<br>+ Digital Analyst<br>+ Senior Data Engineer<br>+ Market Analyst<br>+ Big Data Architect |
| | | **Business Information Systems** | + Data Migration Specialist<br>+ Social Media Data Strategist<br>+ Information Architect<br>+ Database Administrator (DBA)<br>+ IT Support Officer<br>+ Cloud Architect<br>+ Chatbot Developer |

## Product Development

| I like... | My degree options | My specialty | I could be a... |
|---|---|---|---|
| + Creating projects with Arduino or Raspberry Pi<br>+ Participating in hackathons or coding challenges<br>+ Developing apps or tools for school use, such as digital planners<br>+ Taking online courses on AI and Machine Learning<br>+ Designing unconventional art or tech projects<br>+ Working on personal projects that push the boundaries of current technology<br>+ Contributing to open-source projects<br>+ Building DIY electronics kits<br>+ Competing in logic-based competitions like chess or math contests | **Bachelor of Engineering (Honours)**<br>Electrical or Mechatronic or Software<br>**Bachelor of Computer Science**<br>Data Science or Machine Learning or Programming Languages<br>**Bachelor of Computer Science/Master of Data Science**<br>**Bachelor of Information Technology**<br>Software Design | **Hardware** | + Electrical Engineer<br>+ Product Design Engineer<br>+ Automation Engineer<br>+ Hardware Systems Design Engineer<br>+ AI Programmer<br>+ Robotics Engineer<br>+ Machine Learning Engineer |
| | | **Software** | + DevOps Engineer<br>+ Software Engineer<br>+ Games Developer<br>+ Software Architect<br>+ Programmer<br>+ Full Stack Developer<br>+ Software and System Test Engineer<br>+ Natural Language Processing (NLP) Engineer<br>+ Machine Learning Engineer |

# Why study tech at UQ?

## #1
### in Queensland
You'll study at Queensland's top-ranked university for Computer Science and Information Systems – and one of the best globally. *(QS Subject Rankings 2025)*

### Learn from tech leaders
Your teachers include AI experts and cybercrime fighters like Professor Ryan Ko and Professor Shane Culpepper.

### Learn in awesome tech labs
You'll learn in UQ's Cyber War Rooms, device testing labs, design studios, and energy test labs – places where students run real-world cyber-attack simulations and test smart devices.

### Collaborative spaces built for innovation
At UQ, you'll learn in modern labs and collaborative spaces designed to help you experiment, build, and create with other students.

### Graduate faster, go further
Want to stand out? UQ offers vertical degrees where you can finish both a bachelor's and master's degree in just 4 years – helping you fast-track to leadership roles.

### Launch into a global career
UQ's Bachelor of Computer Science and Bachelor of Information Technology are accredited by the Australian Computer Society (ACS) – ensuring your qualification is globally respected and meets international industry standards.

### Learn to think like a tech innovator
UQ's hands-on curriculum blends data, code, and human-centred design, so you can solve real-world problems in any industry – from health to space tech.

### Global experiences and networks through UQ
Gain a global edge with UQ's international study opportunities, including semester exchanges and short-term programs.

### Enjoy a world-class campus lifestyle
UQ St Lucia boasts lakeside study spots, green open spaces, and state-of-the-art labs and study spaces – all just 7km from Brisbane's CBD. Campus life includes cafes, sports facilities, markets, music, and more.

### Find your people
Connect with an inclusive, vibrant, and supportive tech community through clubs, societies, mentoring, and programs that celebrate diversity in technology.

### Be in demand
You'll graduate with in-demand technical and soft skills, ready for global careers and leadership roles.

## Bachelor of Computer Science

**Duration:** 3 years full-time

**Entry requirements:** QLD Year 12 (or equivalent) English, and Mathematical Methods

**Accreditation:** Australian Computer Society

**Dual degrees with Bachelor of Computer Science:** Arts • Business Management • Commerce • Economics • Engineering • Mathematics • Laws • Science

## Bachelor of Computer Science / Master of Cyber Security

**Duration:** 4 years full-time

**Entry requirements:** QLD Year 12 (or equivalent) English, and Mathematical Methods

**Accreditation:** Australian Computer Society

## Bachelor of Computer Science / Master of Data Science

**Duration:** 4 years full-time

**Entry requirements:** QLD Year 12 (or equivalent) English, and Mathematical Methods

**Accreditation:** Australian Computer Society

## Bachelor of Information Technology

**Duration:** 3 years full-time

**Entry requirements:** QLD Year 12 (or equivalent) English, and Mathematical Methods

**Accreditation:** Australian Computer Society

**Dual degrees with the Bachelor of Information Technology:** Arts • Business Managment • Commerce • Engineering • Human Movement and Nutrition Sciences • Science



# Want to know more?

Visit **study.uq.edu.au**

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