The University Of Queensland
AUSTRALIA

Welcome!

Bachelor of Computer Science (BCompSc)

Bachelor Information Technology (BInfTech)

School of Electrical Engineering and Computer Science

Acknowledgement of Country

The University of Queensland (UQ) acknowledges the Traditional Owners and their custodianship of the lands on which we meet.

We pay our respects to their Ancestors and their descendants, who continue cultural and spiritual connections to Country.

We recognise their valuable contributions to Australian and global society.

The Brisbane River pattern from *A Guidance Through Time* by Casey Coolwell and Kyra Mancktelow.

What’s happening today?

Zachary Grice

Welcomes from:

- Head of School – Prof. Michael Bruenig
- Computer Science – Dr Miao Xu
- Information Technology – Dr. Chelsea Dobbins & Dr Aneesha Bakharia

Student Capstone Projects

Tech Unplugged Challenges

Student Societies

AUA (Ask us anything) Panel

Farewell

Courtyard Carnival

Welcome to EECS

Prof. Michael Bruenig - Head of School

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA
CREATE CHANGE

Welcome to the Bachelor of Computer Science

Dr Miao Xu

Congratulations! You've made it!

All of your hard work has paid off! You've made it to UQ!

In about three years' time.... You will be a qualified **computer scientist!**

So why are you here? What do you want to get out of this program? Where to next?

Computer scientists are the hidden force that drive advances across many sectors, playing a vital role in shaping our digital future.

What does a computer scientist do?

https://uq.mu/rl55a

- Design, develop, test, and deploy software
- Solve complex computing problems
- Manage, analyze, and derive insights from data
- Optimize algorithms and system performance
- Implement and test cybersecurity measures
- Research and develop novel techniques to solve existing problems
- Collaborate and work within teams

Computer scientists are creative and innovative problem solvers

Where might you find a computer scientist?

… basically everywhere! Big Tech, Government, Finance and Banking, Healthcare, Pharma, Education, Consulting, Startups, Media, Manufacturing, Science...

Bachelor of Computer Science

Machine Learning

Image Generated with AI
22 November 2023 at 11:46 am

Cyber Security

Image Generated with AI·
22 November 2023 at 11:48 am

Image Generated with AI·
22 November 2023 at 11:52 am

Data Science

Programming Languages

Scientific Computing

Cybersecurity

Protecting digital assets from cyber threats.

Learn the fundamental processes and practices to protect computing systems from attack, damage or unauthorised access. Study secure programming techniques and ethical hacking to safeguard individuals, businesses and governments against cybercrime, and you'll graduate with highly valued and employable skills.

- Cyber security analyst
- Cyber systems engineer
- Security architect
- Information security officer
- Cryptographer
- Information security analyst

CRIM1000: Introduction to Criminology

COMP3320: Vulnerability Assessment and Penetration Testing

COMP3301: Operating Systems Architecture

CYBR3000: Information Security

Data Science

Extracting insights from data to drive informed decision making.

Learn comprehensive and fundamental techniques for end-to-end processing that transforms data into information, and information into knowledge. Study techniques for storing, processing, and deriving insights from big data.

- Data scientist
- Data analyst
- Business analyst
- Statistical analyst
- Database developer
- Research analyst

DATA2001: Fundamentals of Data Science

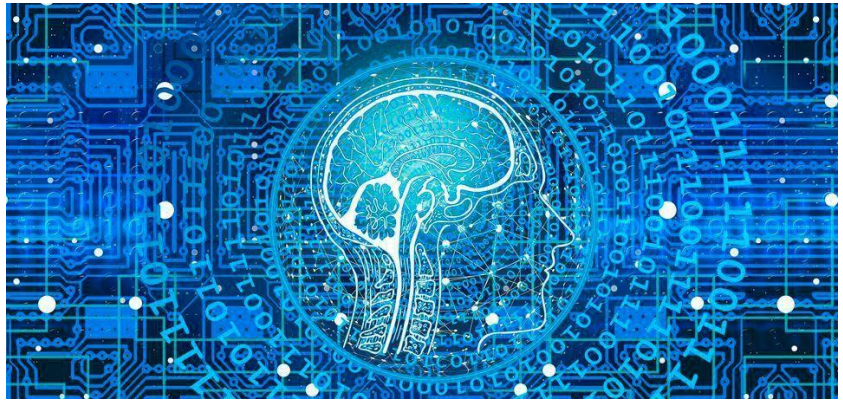
COMP4702: Machine Learning

INFS2200: Relational Database Systems

STAT2004: Statistical Modelling & Analysis

Machine Learning

Machine learning is the study of algorithms that automatically improve with experience.



Learn how computers can automatically identify and harness useful data to help decision making, find hidden insights without being explicitly programmed where to look, and predict outcomes to help authorities design effective policies.

- Data scientist
- DevOps Engineer
- MLOps Engineer
- Data Engineer
- ML Engineer
- Research translation

COMP3702: Artificial Intelligence

COMP4702: Machine Learning

COMP3710: Pattern Recognition and Analysis

STAT3006: Statistical Learning

Programming Languages

Programming languages are the building blocks of software.

Study the craft and science of programming, and graduate with the skills to enable the construction of effective programming languages and reliable software.

- Software Engineer
- Cloud Engineer
- Software Tester/QA
- Full stack developer
- Mobile App developer
- Web developer

COMP4403: Compilers and Interpreters

CSSE3100: Reasoning About Programs

COMP2140: Web/Mobile Programming

COMP3400: Functional & Logic Programming

Scientific Computing

Computers hold the key to fast and efficient analysis of complex scientific problems.

Study algorithms for mathematical analysis to solve a wide array of complex scientific and engineering problems. Graduate with skills used to support various scientific endeavours.

- Software Engineer
- Data Engineer
- Business Analyst
- Algorithm Specialist
- Research Engineer
- HPC Specialist

COSC2500: Numerical Methods in Computational Science

COSC3500: High-Performance Computing

COSC3000: Visualization, Computer Graphics & Data Analysis

SCIE2100: Bioinformatics 1: Introduction

No Major, Single Major, Double Major: Your call

Each BCompSc plan shares the same **16 core units (8 courses).**

Beyond the core, you can choose to **single major, double major**, or **not have a major at all.**

Selecting a given major **will not** lock you into a certain career path, but **it will** demonstrate that you have focused more deeply on a given area of computing.

The BCompSc program is developed at producing life-long learners; you will be able to adapt to new technology, advances and changes in the field, and apply your knowledge to new problems and domains.

Academic Advice

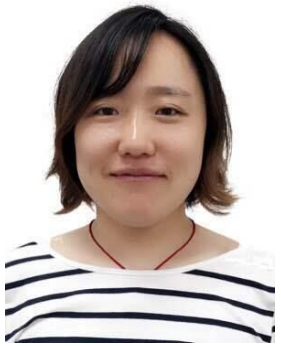
- **Which courses should I choose at the start of the program?**
- **Planning your study – which courses will you take? When?**
- **I want to change to Information Technology / Software Engineering / other**

The following webpage contains lots of useful information

https://eecs.uq.edu.au/current-students/academic-advice/bachelor-computer-science

For more complex questions, you can book an appointment with our academic advisors.

- Failed some courses and need help rearranging your program
- Want to switch/add/remove your major
- Planning for exchange



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Welcome to the Bachelor of Computer Science

and best wishes for your program!

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA
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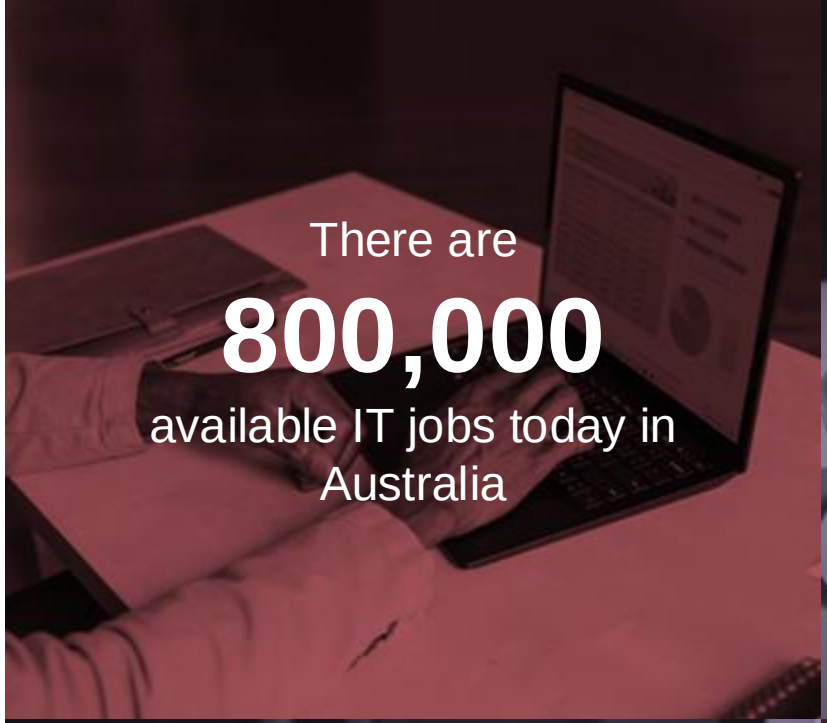
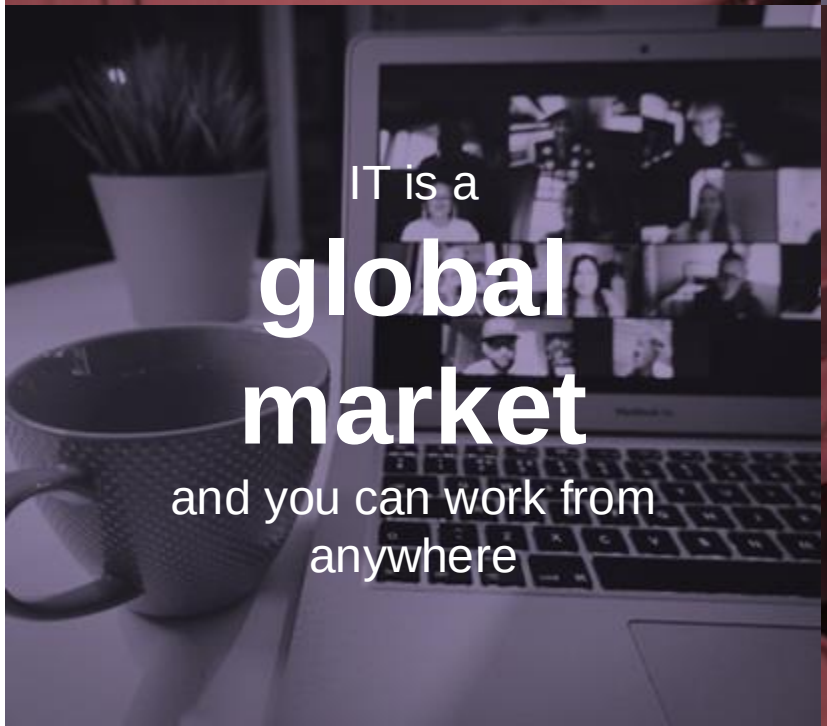
Bachelor of Information Technology

Dr Chelsea Dobbins and Dr Aneesha Bakharia

Information Technology degrees are a great solution for people who want a well-paid, flexible, global and impactful career.





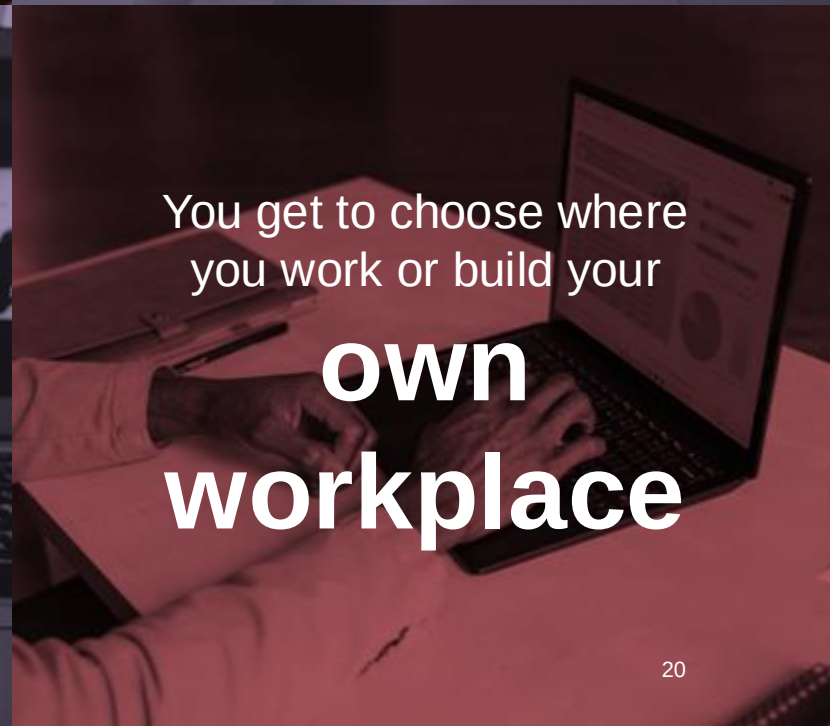


Photo by Compare Fibre on Unsplash

What is Information Technology (IT)?

- IT (sometimes called ICT) professionals design and build the digital systems we use in our everyday lives
  - Commerce
  - Transport
  - Entertainment
  - Social
- Successful careers in many different areas of industry and parts of society
  - Experience designer
  - Software developer
  - System architect
  - Software engineer
  - IT application specialist
  - Product designer

Who are the people working in Information Technology?

The University Of Queensland
AUSTRALIA
CREATE CHANGE

Work in exciting and emerging industries

Problem solvers

Creative

Contributors to Society

Curious and resilient

Innovators

Team players

Adaptable

Global Opportunities

Meet Hannah

UI/UX Graduate Consultant at Deloitte

3 things about Hannah:

1. Graduated in 2022 from UQ, with a Bachelor of Information Technology, major in User Experience Design.

2. Worked as a demonstrator during her studies.

3. "*I'm passionate about technology because I like to design technology that works for people*."

BInfTech

Areas of study:

- Technology (programming, databases, design)
- Studio (team-based projects, open-ended problems, integrate knowledge from other courses)
- Electives (courses chosen from IT specialisms or from other areas altogether, e.g. languages, business, etc.)

Honours Year

- Optional fourth year after completion of your program
- Advanced coursework and honours project

BInfTech

Majors offered:

- Software Design
- Software Information Systems
- User Experience Design

Minor offered:

- Computer Systems

https://my.uq.edu.au/programs-courses/requirements/program/2453

Meet our UQ student projects

Human-Computer Interaction

Conversational Agents

User Experience

Cyber Security

Interaction Design

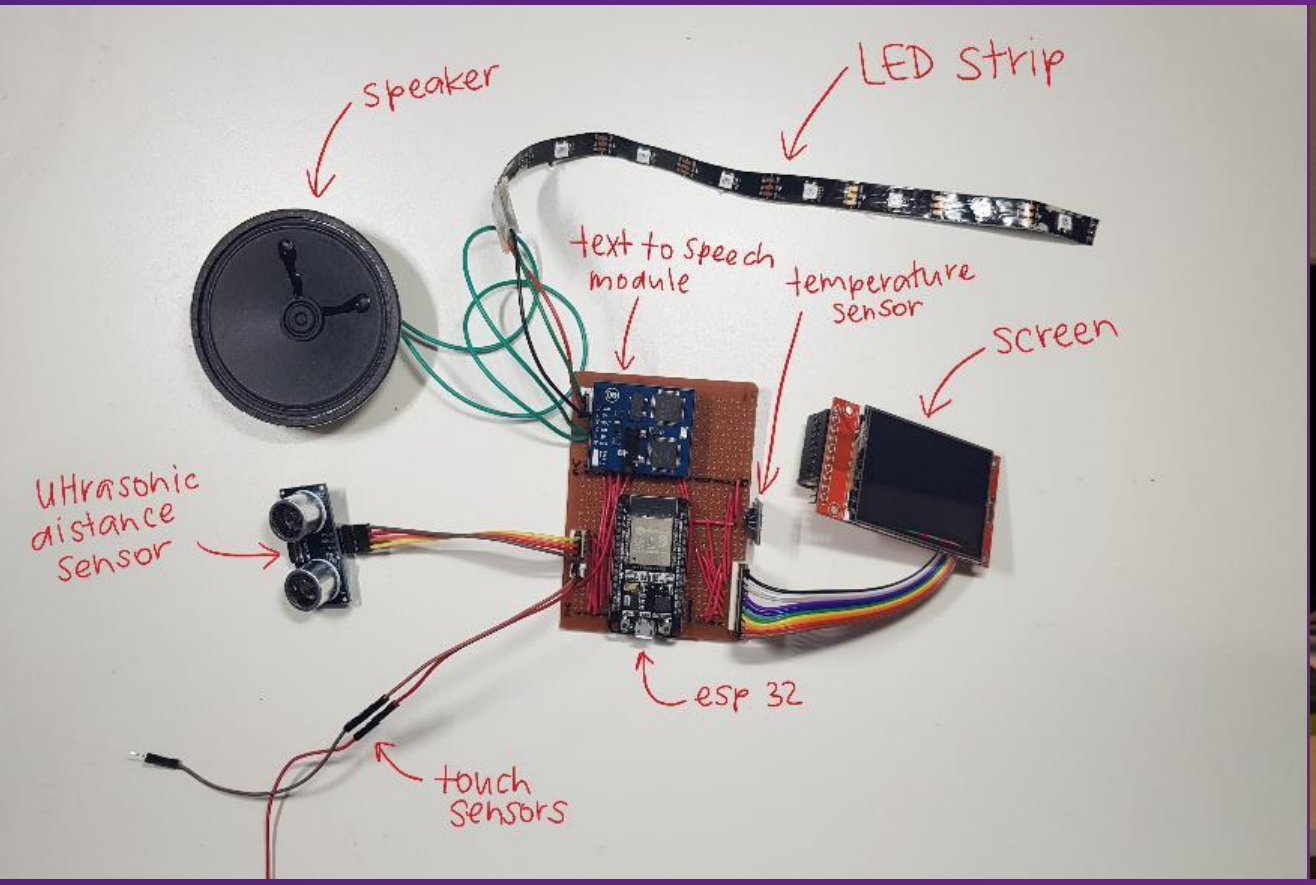
Artificial Intelligence

Virtual Reality/
Augmented Reality

Digital Health

Robotics

You get the best of both worlds



You're Supported

https://my.uq.edu.au/student-support

Global Experiences

https://www.eait.uq.edu.au/global-experiences

Student Societies

https://uqu.com.au/clubs-and-societies/

Student Capstone Courses

Dr Mashhuda Glencross – DECO3801 Teaching Staff

Course Overview

Team design and software/IT prototype implementation.

Focus on project brief specifications and industry-level deadlines.

Emphasizes project-based learning and skills consolidation.

Future Applications

Develops professional practice skills.

Prepares students for managing projects and collaborating in workplaces.

Emphasizes critical analysis, ethical considerations, and successful project outcomes.

E.g. Sprout

By Caleb Ang, Lachlan Benson, Eugene Chong, Li-Sung Ou, Hoang Ly Phung, Nisha Vashist

More on Sprout

By Caleb Ang, Lachlan Benson, Eugene Chong, Li-Sung Ou, Hoang Ly Phung, Nisha Vashist

Project Overview

- A wearable watch and mobile app for bipolar disorder patients
- Utilizes Arduino prototype with biofeedback sensors for self-mental awareness

Biofeedback Sensors

- Detects: Movement (gyro/accelerometer), sweat levels, steps (pedometer), and heart rate

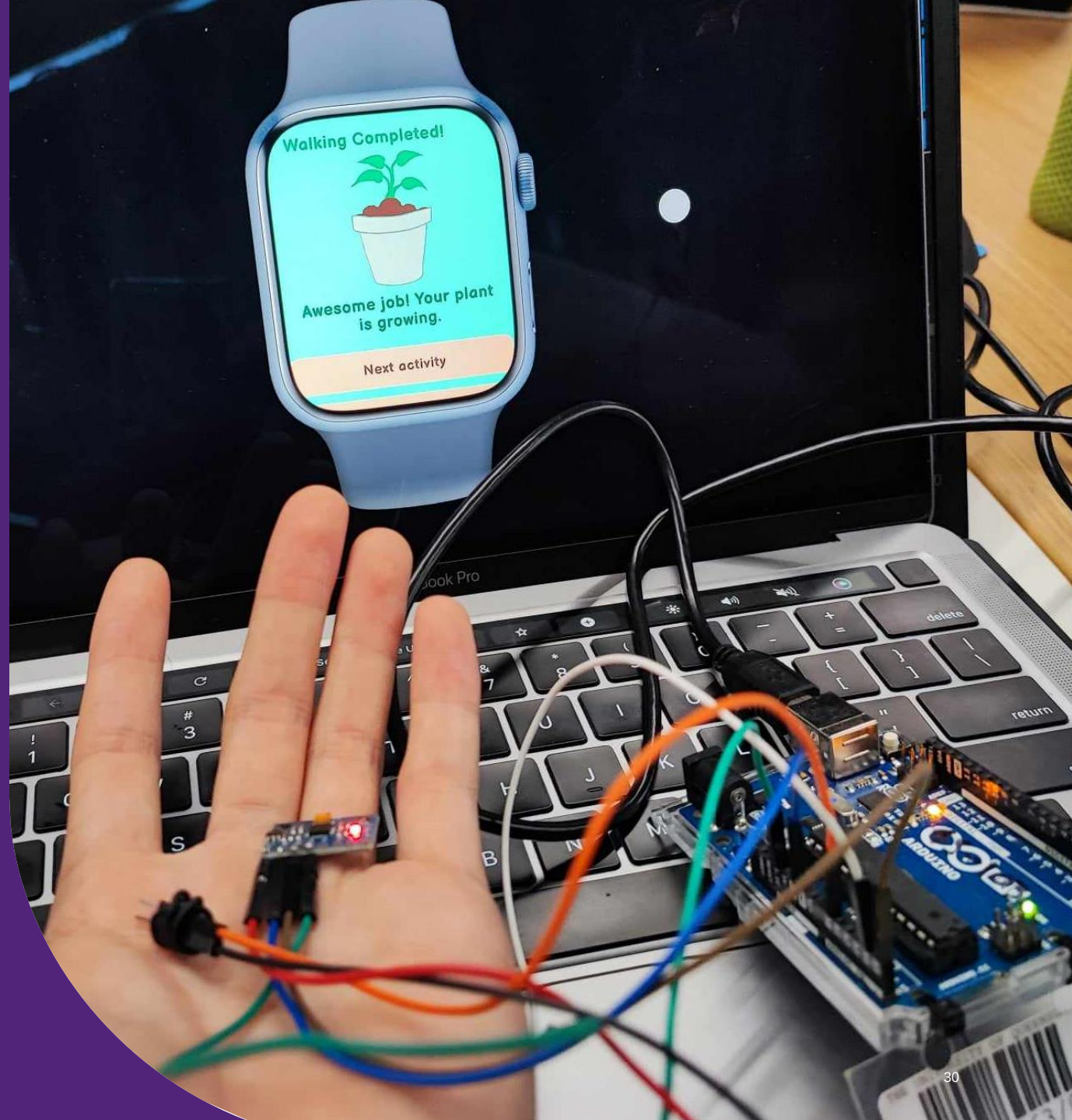
Functionality

- Identifies mood shifts and negative mental health patterns based on sensor data
- Data displayed on a simulated React web app interface

Nominations

Best User Experience Design.

Project with significant commercial potential.



Tech Unplugged Challenges

First year teaching staff

Joseph Hattcliff (ENGG1100)

Yutong Ji (CSSE1001)

Talia Garrett-Benson (INFS1200)

Binary Fashion

Encode / Decode

Make me a Sandwich

Team prizes on offer for Binary Fashion and Make me a Sandwich.

Student Societies

Introduction

UQ Computing Society (UQCS) – Iain

UQ Ladies in Technology (UQLiT) – Julie

UQ Cyber Squad (UQ Cyber) – Karthikeyan and Avery

UQ Reality Labs – Masham and Harrison

UQCS

UNDERGRADUATE ORIENTATION

| 00

UQ Computing Society

01 | About Me

3rd Year
Computer Science
(Cyber Security)

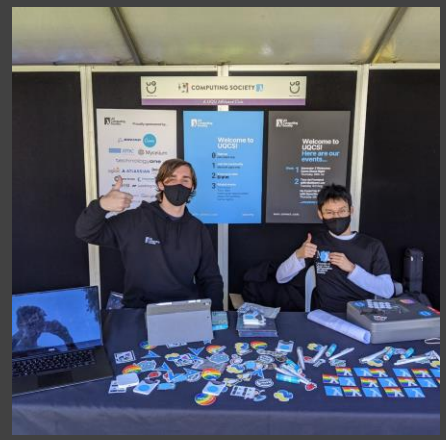
2024: President
2023: Exec. Committee
2022: New Member

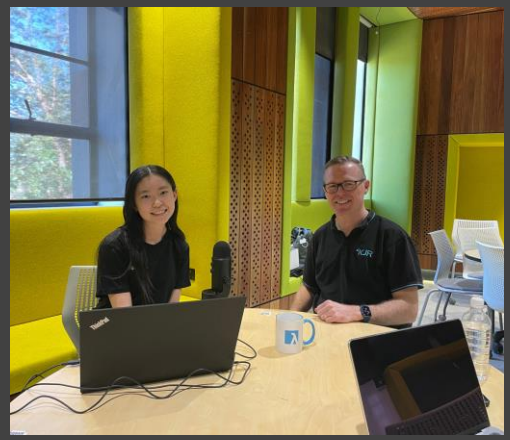
WHY UQ?

Program offerings
Employability
Great campus

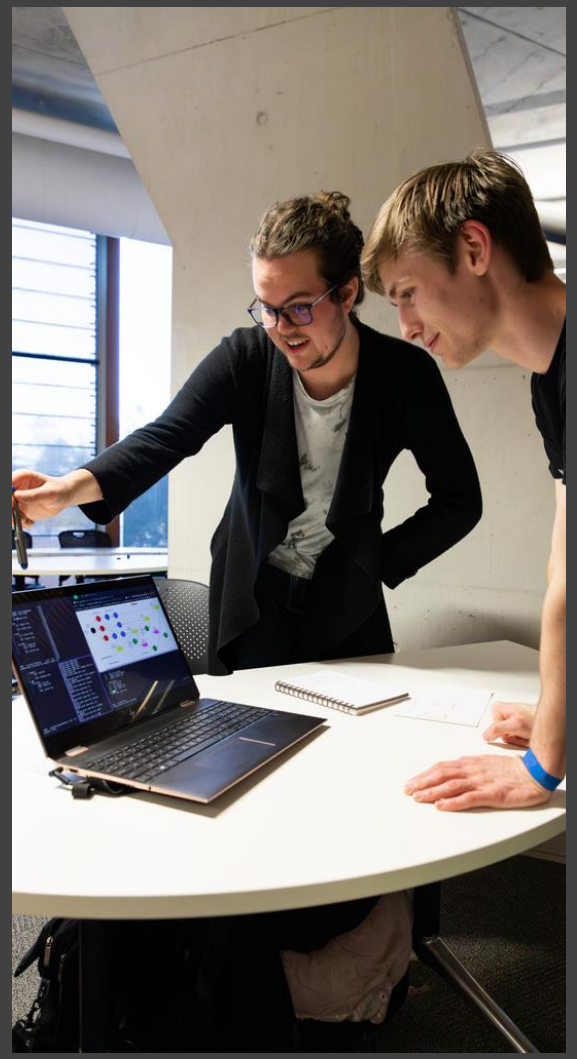
02| About Us

- Student society for students with an interest in Computer Science, Software Engineering and IT
- We are an inclusive club with a diverse membership of undergraduate and graduate students from a wide range of disciplines
- We have industry sponsors from a diverse range of industries
- We host a wide range of events from weekly talks/panels to large competitions, networking events and society collaborations





UQ Computing Society



Our Events

Learn.

Tech Talks, Panels and workshops hosted by students, sponsors and industry experts talking about what interests them

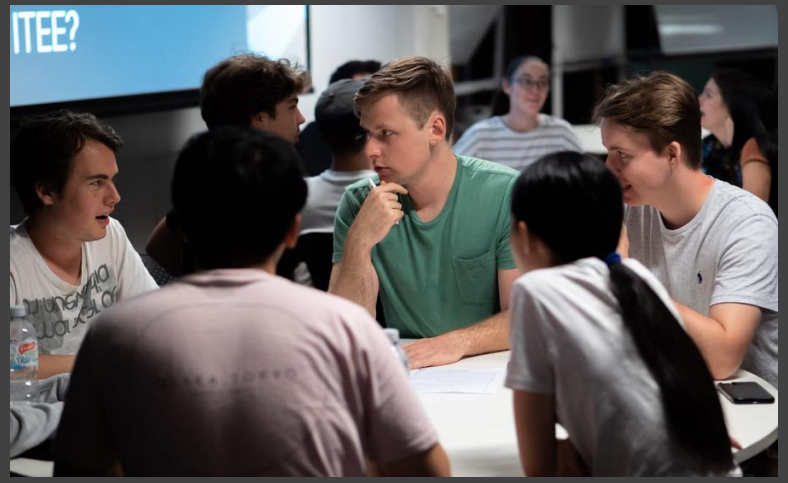
Connect.

Social events include welcome trivia, end of semester drinks, the Brisbane Tech Clubs BBQ and more.
Networking events include our High Frequency Networking Event and Mock Interviews.

Code.

Code Jam (semester 1) and Hackathon (semester 2) competitions with great prizes and food.

Can't join in person? We also livestream our competitions and weekly events on youtube
https://www.youtube.com/c/UQComputingSociety



UQ Computing Society

Learn. Connect. Code. | UQCS FEB 2024

How to Get Involved

0. Become a member

You can join at uqcs.uqcspay.org. Membership is only $2.

You can also learn more about us on our website uqcs.org.

1. Stay Connected

Discord is the easiest way to stay connected with our community. You can join at discord.uqcs.org.

You can also find us on Facebook, Instagram, LinkedIn and Youtube.

2. Come to events

Keep an eye on our socials for upcoming events.

Hackathon is a great event for new members, and our first year panel for those new to University.

UQ Ladies in Technology (UQLIT)

UQLIT is a student society dedicated to fostering a supportive and inclusive community for current and future women in technology who are undertaking their educational and professional ambitions.

Number of members in 2023: 318 students

LIT

Our Past Events

Our Sponsors

Upcoming Events

2024 Corporate Events

- Optiver Careers Fair
- Resume Building and Professional Headshots
- Mock Interviews
- Breaking Down Buzzwords Workshop
- UX Design Workshop
- High Frequency Networking
- Design Computing Student Showcase

2024 Social Events

- Launch Picnic
- Science Ball
- Scavenger Hunt
- Womens Wednesday Running Series
- IWD High Tea Picnic
- Arts and Crafts Workshops
- RU Ok Day Fun Run
- BBQs
- Study Sessions

Connect with us!

QPAY Link:

Ladies in Technology - LIT

@uq.lit

LIT

UQ CYBER SQUAD

O-Week Undergrad Orientation

Who are we?

We’re White-Hat hackers! (The good guys)

But really we’re just a friendly group of students who like learning and competing together, aiming to be the best CTF team in Australia! (Eventually)

And you can be too!

What do we do?

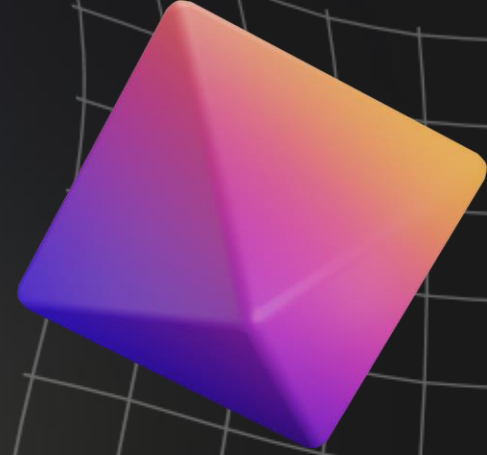
Lots!

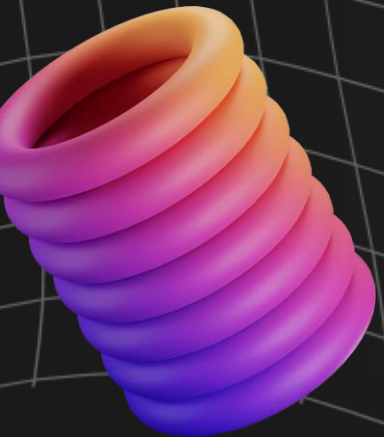
- Participate in competitions (Capture The Flag)
- Attend conferences
- Weekly events (learn heaps, get practice, even just chat)
- Use school resources
- Social events
- Gaming nights

Thanks for Listening. Don’t forget to join us on discord for event notifications and hangouts. :)

https://discord.com/invite/6TRbC7Y

https://uqcybersquad.getqpay.com/





est. 2022

REALITY LABS

AUSTRALIA’S FIRST AR/VR STUDENT SOCIETY

WHAT IS UQRL?

UQ Reality Labs is an AR/VR society open to all students, promoting industry and social opportunity alongside workshops.

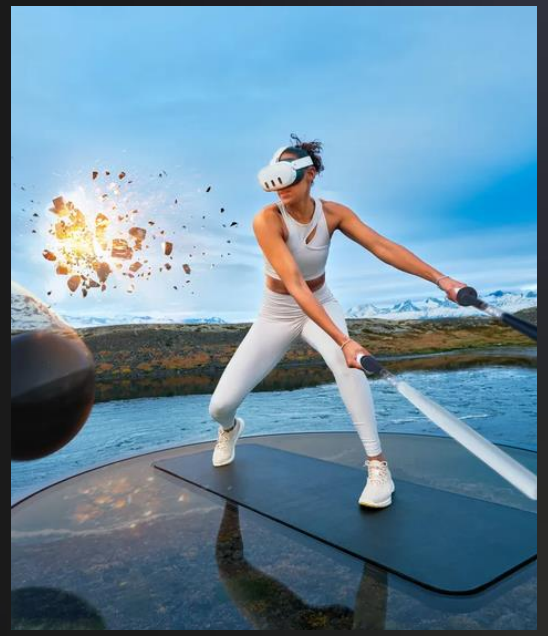
UQRL was founded in Semester 2, 2022 and won UQ Union’s Best Small Club in 2023.

WHAT IS UQRL?

Missions:

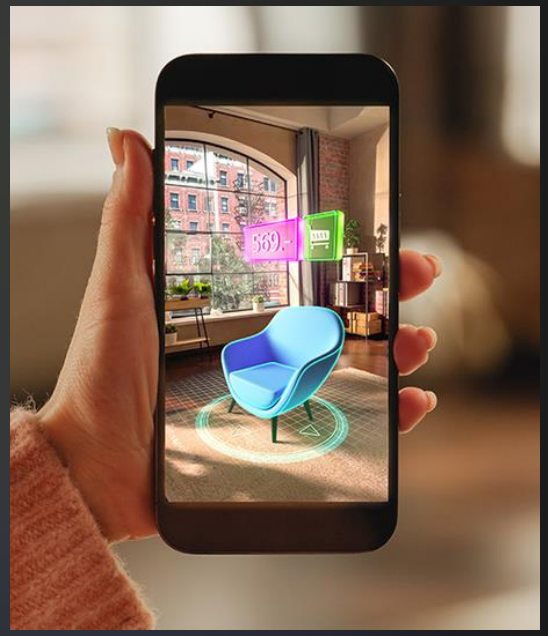
- Making XR accessible
- Bridging the gap between academia and the industry in XR
- XR innovation

WHAT IS XR?



VR
Virtual Reality

MR
Mixed Reality



AR
Augmented Reality

SEMESTER 2 EVENTS

WEEK 1	WEEK 4
MARKET DAY	WOMEN IN TECH INN
WEEK 2	WEEK 5
INTRO TO AR/VR WORKSHOP	QLD XR HUB FIRM VISIT
WEEK 3	WEEK 6 - 13
SPECIAL GENERAL MEETING	INDUSTRY, SOCIAL, WORKSHOPS, EXHIBTION NIGHT

WHY JOIN?

- Interact with technology you cant easily
- Interact with unique XR based companies
- Prioritised unique job offerings sent to members
- Niche Club
- Great look on your resume

THANK YOU

Become a UQRL member on Market Day, prizes to be won!

AUA (ask us anything)

Panel of experts – CompSci, InfTech, Casual Academics, Coursework Studies

Bachelor of Computer Science – Dr Miao Xu

Bachelor of Information Technology – Dr Aneesha Bakharia

Coursework Studies – Jacki Drinnen

First Year Coordinator – Archie Chapman

Student Representatives

EAIT New Student Resources

COURTYARD CARNIVAL

TODAY, FROM 1PM

ANDREW N. LIVERIS COURTYARD

- FREE FOOD
- MUSIC
- SUPPORT SERVICES