

# Lucas Liu

## Driven Software Engineer

### Monash University

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**Codecademy:**  
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#### Qualifications & Education:

Monash University Bachelor of Engineering (Software) (Hon) 2020 - 2023

#### Languages:

English: Native  
Chinese Mandarin: Intermediate

#### Proven Tech Stacks:

- Front End Web Development
- Full Stack Web Development
- Agile Methodologies
- Amazon EC2
- Bashscript
- C/C++
- Dotnet
- Docker
- Git Version Control
- Machine Learning
- HTML5/CSS3
- JQuery
- JavaScript and TypeScript
- Lisp and Elisp
- Machine Learning
- NoSQL Databases
- Object-oriented Programming
- Parallel Processing
- Python
- React Native
- React.js
- Regex
- Rest API
- Rust
- SQL
- Emacs

#### Licenses & Certifications:

Full-Stack Engineer Career Path (Codecademy)  
[Credential](#)

Penetration Testing, Incident Response and Forensics (IBM)  
[Credential](#)

AWS Web Services Certified 2022 - 4 Certifications (Udemy)  
[Credential](#)

Build a Machine Learning Model with Python Skill Path

Hey there, I'm Lucas! 🙌 I am a motivated software engineering student with a diverse array of skills and experiences, ranging from web and mobile app development to machine learning research. I pride myself on my efficient time and effort management abilities and my aptitude for continuous learning paired with my high learning agility.

I am currently working as a software development intern at eNett International and as a software engineer at MYMI. I have proven success in designing and deploying a medical clinical record search engine, developing a personalized mobile app, and conducting research in identifying human values in open-source code.

#### Work Experience:

##### WEX

###### Software Development Intern

Feb 2021 - Present (11 months)

As a Software Development Intern at eNett International, I'm part of a fintech team that develops innovative payment solutions. My achievements include:

- Developed a retry policy for a high-volume settlement matching service. Managed encryption key updates for HSBC and Citibank.
- Conducted impact analysis for ANZ's MT940 file format changes.
- Set up VANS on developer laptops and created setup guides.
- Assisted in resolving financial discrepancies and compliance issues.
- Fixed bugs related to chargeback reversals.

##### Monash Young MedTech Innovators (MYMI)

###### Mobile Application Developer

Jun 2022 - May 2023 (1 yr)

- As a developer on the Aesop project, I played a key role in creating a mobile application that presents personalised images, also known as social stories, to neural-divergent children in a hospital setting.

###### Software Engineer

Jun 2022 - Present (1 yr 1mos)

- Designing a search engine for clinical guides
- Refining the frontend
- Deploying the web application on Amazon EC2
- Building a parsing engine on the back end to save clinical guide data as JSON in MongoDB
- Allowing the medical calculator to accept equations and code, saving it to the database.

##### Monash University HumanISE Lab

###### Summer Research Assistant

Nov 2021 - Jan 2022 (3 months)

- Trained several machine learning models that can scan for human value violations in code b reading comments.
- Deployed Machine learning classifier to a web application using a task queue that can be run asynchronously (in the background).

##### MW Sheetmetal

(Codecademy)

[Credential](#)  
[Notes](#)

Monash University Full Stack  
Development Presentation  
Volunteer  
[Credential](#)

Strategy Consulting Virtual  
Internship (Accenture)  
[Credential](#)

Become a User Experience  
Designer Learning Path (LinkedIn)  
[Credential](#)

C#: Advanced Practices (LinkedIn)  
[Credential](#)

Learn C Course (Codecademy)  
[Credential](#)  
[Notes](#)

Learn TypeScript Course  
(Codecademy)  
[Credential](#)  
[Notes](#)

Learn SQL Course (Codecademy)  
[Credential](#)

Learn the Basics of Regular  
Expression Course (Codecademy)  
[Credential](#)

Learn the Command Line Course  
(Codecademy)  
[Credential](#)

Learn the Bash Scripting Course  
(Codecademy)  
[Credential](#)

Website Hacking / Penetration  
Testing Course  
[Credential](#)

#### Other Hobbies:

Cooking  
Sports  
Gym  
Coding

### Computer Aided Design Technician

Feb 2016 - Jun 2018 (2 years)

### Mad Patties

Kitchen Staff

May 2021 - Oct 2022 (1 year 6 months)

### ⚙️ Engineering Team Competitions

- Software development team using Scrum model - 2021
- Hacksprint x MAC hackathon team leader - 2021
- Warman Competition
- Engineering mobile apps team leader
- Flight vehicle design (aerodynamics sector) Airbus A350 competitor - 2020

### 📁 Open Source Software Project Contributions and Projects

#### Usability Accessibility Testing Toolkit

[Repo](#)

- Using AI and neural networks to detect for display bugs and usability issues.
- Technologies: Python, docker

#### Human Values Machine Learning Application

[Repo](#)

- An application that scans for comments inside code and using nlp and machine learning models to detect human value mentions based on swartz model.
- Enter public git repo and branch name to start.
- Technologies: Python, Scikit-learn, matplotlib, NLTK, flask, celery, heroku.

#### Coding Notes

[Repo](#)

- My personal coding notes and snippets, organized by language and topic with code examples.

#### Flashcard Application

[Repo](#)

- A simple flashcard application using React.js and Express.js using the concept of spaced repetition to help users to remember notes.

#### Effective Octo Lamp

[Repo](#)

- A shell script that automatically commits and pushes changes to your GitHub repo using cron scheduling

#### Image Overlayer

[Repo](#)

- Overlay one image over another
- Technologies: Rust

### 😊 Volunteer Experience:

#### College Advisor

Monash Non-Residential College

Feb 2022 - Feb 2023 (1 year)

- Supported Monash University students by providing social support and organising events and meet-ups for cluster of 30 students.
- Undertook several training modules on mental health, leadership, time management and inclusion to help support others

#### Support Youth Leader

Each

Jun 2020 - Aug 2020 (3 months)

- Helped establish a book club and started a library for youth in the community by working in a team.
- Organised events and also activities relating to music for youths.

