

# NICHOLAS LAMBOURNE

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## EDUCATION

### The University of Queensland

Bachelor of Engineering (Hons) (Software Engineering)  
Bachelors of Commerce/Science (Finance & Psychology)

St Lucia, QLD, Australia

Feb 2016 - Nov 2020

Graduated 2015

### The University of Connecticut

Exchange Studies (Computer Science)

Storrs, CT, United States

Jan 2018 - May 2018

## EXPERIENCE

### The University of Queensland - Complex & Intelligent Systems Group

Research Assistant

St Lucia, QLD

Jun 2018 - Present

- Contributed to the development of Elpis, abstracting away the complexity of the Kaldi Automatic Speech Recognition library. Our team took a CLI toolkit and developed a GUI with React and Flask.
- Developed software for the Ngukurr OPIE Social Robot Project (see Hermes, below).

### The University of Queensland - Faculty of Engineering, Architecture & IT

Teaching Assistant

St Lucia, QLD

Jul 2018 - Present

- Led tutorials and supervised practicals for the course *Programming in the Large*, where students are taught Java, object-oriented programming and the fundamentals of GUI development.
- Responsible for several teams of first-year engineering students taking the course *Engineering Modelling and Problem Solving* in which they utilise industry tools including CREO and Matlab to design, build and test a model UAV.

### Patchd, Inc.

Software Engineering Intern

San Francisco, CA

Jan 2019 - Feb 2019

- Patchd is a Y-Combinator backed startup working on the detection of sepsis from vital sign data using ML.
- I worked on parallelisation strategies for training RNNs and introduced elements of software engineering best practice.

## SKILLS

**Languages:** Python, Java, C, JavaScript, SQL, L<sup>A</sup>T<sub>E</sub>X, HTML/CSS

**Tools:** Web Frameworks (Django, Flask, ExpressJS), SQL DBs (PostgreSQL, MySQL), NoSQL (Mongo), CI/CD (Jenkins), Cloud Platforms, Containerisation (Docker)

## PROJECTS

### Elpis - Accelerated Linguistic Transcription (<https://github.com/CoEDL/elpis>)

- Part of a team developing a framework and GUI for automatic speech recognition using the Kaldi ASR library.

### Hermes - The Language Resource Creator (<https://github.com/CoEDL/hermes>)

- Developed a cross-platform Python/Qt application for creating language resources from linguistic analysis files.

### uqcsbot (<https://github.com/UQComputingSociety/uqcsbot>)

- Contributed new Python scripts, script overhauls, and code reviews to my university computing society's Slack bot.

### adled-io (Proprietary/Closed Source)

- Portal for monitoring an LED billboard network with real-time status and live video using Python, Django & PostgreSQL.

### LED Billboard Rotation System (Proprietary/Closed Source)

- Python system for controlling the rotation of large-format LED billboards including GUI and concurrency-based features.

## VOLUNTEERING

### University of Queensland Computing Society

2014 - Present

- Elected president of the 400+ member society for the 2019 academic year.
- I have also given lightning talks, assisted with events and contributed to open source projects (websites, Slack bots etc.).

### Node Girls/Django Girls/Robogals (Brisbane Chapters)

2016 - Present

- Provided mentorship in web and robotics technologies in an effort to increase female representation in technology.

## SCHOLARSHIPS, GRANTS & PRIZES

UQ IdeaHub San Francisco Startup Adventure Participant

The University of Queensland (2019)

UQ Summer Research Scholarship

The University of Queensland (2019)

UQ Advantage Grant (CoEDL Summer School)

The University of Queensland (2018)

UQ Winter Research Scholarship

The University of Queensland (2018)

University of Connecticut Innovation Quest - Finalist

The University of Connecticut (2018)

UQ Abroad Travel Grant (University of Connecticut)

The University of Queensland (2018)

References available upon request