# NICHOLAS LAMBOURNE

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#### **EDUCATION**

#### The University of Queensland

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

The University of Connecticut

Exchange Studies (Computer Science)

St Lucia, QLD, Australia Feb 2016 - Nov 2020 Graduated 2015 Storrs, CT, United States Jan 2018 - May 2018

#### EXPERIENCE

# The University of Queensland - Complex & Intelligent Systems Group

St Lucia, QLD

Research Assistant

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

St Lucia, QLD Jul 2018 - Present

Teaching Assistant

- Ran practical learning sessions and marked assessment for the course *Computer Systems Principles and Programming* (CSSE2310), where students learn systems programming in C and the fundamentals of Unix operating systems.
- Led tutorials, supervised practicals and developed learning material for the course *Programming in the Large* (CSSE2002), where students are taught Java, object-oriented programming and the fundamentals of GUI development.
- Responsible for teams of first-year engineering students taking the course *Engineering Modelling and Problem Solving* (ENGG1200), in which they utilise industry tools including CREO and Matlab to design, build and test a model UAV.

Patchd, Inc.

San Francisco, CA

Software Engineering Intern

Jan 2019 - Feb 2019

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

#### SKILLS

Languages:

Python, Java, C, JavaScript, SQL, LATEX, 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)

 $\bullet \ \ \text{Contributed new Python scripts, script overhauls, and code reviews to my university computing society's Slack bot.}$ 

# SlackBlocks (https://github.com/nicklambourne/slackblocks))

• Published a Python wrapper library for back-porting the Slack Blocks API into earlier versions of the Slack client.

# 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 500 member society for the 2019 academic year. Active member since 2014.
- Organised talks and events, secured sponsorships, and managed open source projects (websites, Slack bots etc.).
- Oversaw a 30% increase in membership, twofold increase in number of events, and a 75% increase in sponsorship.

#### 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)