# NICHOLAS LAMBOURNE

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### EDUCATION

The University of Queensland

Bachelor of Engineering (Hons) (Software Engineering)

Bachelor of Commerce (Finance) & Bachelor of Science (Psychology)

The University of Connecticut

Exchange Studies (Computer Science)

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

### EXPERIENCE

Canva

Sydney, NSW

Dec 2019 - Present

- Software Engineering Intern
  - As part of the infrastructure team, built a shell script transpiler framework and reference generator targeting Python 3.
    Created an interactive playground, using Python, Flask and React, allowing for real-time transpilation in the browser.
- The University of Queensland Complex & Intelligent Systems Group

Brisbane, QLD

Jun 2018 - Present

Research Assistant

- Contributed to the development of Elpis, abstracting away the complexity of the Kaldi automatic speech recognition (ASR) library. Our team took a CLI toolkit and developed a GUI using React and Flask.
- Developed resource creation software for the Ngukurr OPIE Social Robot Project (see Hermes, below).

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

Brisbane, 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.

Patchd, Inc.

San Francisco, CA

Jan 2019 - Feb 2019

Software Engineering Intern

• Worked on parallelisation strategies for training recurrent neural nets in the detection of sepsis from vital sign data.

### SKILLS

Languages:

Python, Java, C, JavaScript, SQL, HTML/CSS, LATEX

Tools:

Web Frameworks (Flask, Django, ExpressJS), SQL DBs (PostgreSQL, MySQL), NoSQL (Mongo),

CI/CD (Jenkins, Travis), Cloud Platforms, Containerisation (Docker)

### PROJECTS

## Elpis - Accelerated Linguistic Transcription

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

 ${\bf github.com/CoEDL/hermes}$ 

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

### **UQCSbot**

# ${\bf github.com/UQComputingSociety/uqcsbot}$

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

# SlackBlocks

 ${\bf github.com/nicklambourne/slackblocks}$ 

• A Python library, published on PyPI, for back-porting the Slack Blocks API to earlier versions of the Slack client.

### LED Billboard Rotation System

(closed source)

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

### Volunteering

### University of Queensland Computing Society

2015 - Present

- As president in 2019 I organised talks and events, secured sponsorships, and managed the club's open source projects.
- Oversaw a 30% increase in membership, twofold increase in number of events held, and a 75% increase in sponsorship.
- The society won the Best Faculty Club of the Year award at the 2019 UQ Union Clubs & Societies awards night.

### 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)
UQ Abroad Travel Grant (University of Connecticut)	The University of Queensland (2018)