Nicholas Lambourne

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Education

The University of Queensland	Brisbane, QLD, Australia
Bachelor of Engineering (Hons) (Software Engineering)	Feb 2016 - Jul 2021
Bachelor of Commerce (Finance) & Bachelor of Science (Psychology)	Graduated 2015
The University of Connecticut	Storrs, CT, United States
Exchange Studies (Computer Science)	Jan 2018 - May 2018

Experience

The University of Queensland - Complex & Intelligent Systems Group — Brisbane, QLD
Research Assistant — Jun 2018 - Present
- 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
Teaching Assistant — Jul 2018 - Present
- 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.

Canva — Sydney, NSW
Software Engineering Intern — Dec 2019 - Feb 2020
- 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.

Patchd, Inc. — San Francisco, CA
Software Engineering Intern — Jan 2019 - Feb 2019
- 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 — **github.com/CoEDL/hermes**
- Developed a cross-platform Python/Qt application for creating language resources from linguistic analysis files.

UQCSbot — **github.com/UQComputingSociety/uqcsbot**
- Contributed new Python scripts, script overhauls, and code reviews to my university computing society's Slack bot.

SlackBlocks — **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)

References available upon request