NICHOLAS LAMBOURNE

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EDUCATION

The University of Queensland   St Lucia, QLD, Australia
Bachelor of Engineering (Hons) (Software Engineering)   Feb 2016 - Nov 2020
Bachelors of Commerce/Science (Finance & Psychology)   Class of 2015

EXPERIENCE

The University of Queensland - Complex and Intelligent Systems Group   St Lucia, QLD
Research Assistant   Jun 2018 - Present
- Part of an interdisciplinary team of linguists and engineers producing software for the Ngukurr OPIE Social Robot Project (see Hermes, below). Conducted tutorials and created an academic poster demonstrating the produced software.
- Contributed to the Transcription Acceleration Project through work abstracting away the complexity of the Kaldi Automatic Speech Recognition library. Originally only a CLI toolkit, a GUI is currently being developed (Elpis).

The University of Queensland - Faculty of Engineering, Architecture & IT   St Lucia, QLD
Teaching Assistant   Jul 2018 - Present
- 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.
- Supervised students in practical sessions, marked student assignments and facilitated various forms of assessment.

ADLED Pty. Ltd. & SS Signs   Cleveland, QLD
Technical Advisor   Oct 2015 - Dec 2017
- Developed and maintained a real-time online resource monitoring portal for the LED network (see projects, below).
- Compiled financial reports and worked with industry groups to lobby local governments on legislative issues.
- Headed an extensive technical and financial review of digital advertising content management systems.
- Developed software to control the rotation of LED billboards to face oncoming traffic (see projects, below).

SKILLS

Programming Languages
Familiar:	Python, Java, C, JavaScript, SQL, LaTeX, HTML/CSS
Encountered:	Matlab, Ruby, AVR Assembly, SML, Smalltalk, Prolog

Other Skills
Tools:	VCS (Git, SVN), Web Frameworks (Django, Flask, ExpressJS), NodeJS, Jupyter, REST APIs, Linux (Ubuntu), Web Servers (nginx, Apache), SQL DBs (PostgreSQL, MySQL), NoSQL (MongoDB), CI/CD (Jenkins), Wordpress, Cloud Platforms (AWS EC2, S3, EB; Heroku)

PROJECTS

Hermes - The Language Resource Creator (https://github.com/CoEDL/hermes)
- As part of the UQ Winter Research Scholarship I developed a cross-platform Python application, using the Qt GUI library, for creating language resources from ELAN linguistic analysis files and associated media.

ndl.im (https://github.com/nicklambourne/personal)
- Personal website built using NodeJS, ExpressJS and MongoDB with an automated build pipeline and Jenkins for CI/CD.

uqcsbot (https://github.com/UQComputingSociety/uqcsbot)
- Contributed new scripts and script overhauls to my university computing society's Slack bot, originally written in JavaScript and later ported to Python. Now also responsible for providing code reviews and merging pull requests.

adled-io (Proprietary/Closed Source)
- Built a proof-of-concept web portal for monitoring an LED billboard network. Used various APIs to provide real-time status monitoring and live video feeds. Built using Python, Django, PostgreSQL. Hosted on a VPS using Gunicorn/nginx.

LED Billboard Rotation System (Proprietary/Closed Source)
- Developed a system for controlling the rotation of large-format LED billboards. It utilised a daemonized Python process running on a Unix-based device. Later upgraded to include a GUI component 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)   2017 - Present
- Provided mentorship in web and robotics technologies in an effort to increase female representation in technology.

YOW! Developer Conferences   2017 - Present
- Participated as a student volunteer assisting with conference organisation and preparation.

AWARDS, GRANTS & PRIZES

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)
Dean's Commendation for Academic Achievement	The University of Queensland (2011)

References available on request