

# Taylor Manderson

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## Professional Experience

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### Cubiko

Senior Software Engineer

July 2020–December 2021

- Transitioned analytics pipeline from Qlik on Azure to a custom pipeline using Airflow, DBT, Snowflake, Cube.js, and Highcharts (including moving core infrastructure to Kubernetes on AWS) reducing infrastructure costs by 70%
- Full stack software development on our core Clojure/ClojureScript product
- Automation of business-as-usual functions with polyglot microservices (incl. Python, TypeScript, Rust, Clojure)

### Max Kelsen

Software Engineer (Data, Infrastructure, DevOps)

Oct 2019–May 2020

- Built, deployed, and maintained production Machine Learning workloads (streaming, on-demand, and batch) both on Kubernetes and using managed services on both GCP and AWS
- Client-facing consulting on machine learning, software development, and data engineering projects, including projects as primary engineer
- Development of standard practices and procedures to improve core software engineering competency of machine learning engineers

### Wattwatchers

Consulting Software Developer

Dec 2018–Jul 2019

- Time-series PostgreSQL query and schema optimisation yielding a 70% read/30% write performance improvement
- Implementing asynchronous and concurrent patterns in a Python TCP socket server for IoT with Kafka yielding a 1.5x throughput increase

### Polymathian

Software Developer

Dec 2015–Mar 2019

- Diverse role including full stack web dev, system administration/DevOps, data science, client-facing consulting
- Solely responsible for company-wide transition to deployment with Docker
- Developed a transparent API for running tasks asynchronously in a distributed and concurrent environment
- One of two developers on rearchitecture of core internal tooling to a microservice architecture

### University of Queensland

Tutor, Introduction to Software Engineering

Feb–Nov 2015

- Modified Python's `unittest` to provide student-friendly test results and automated marking features
- Awarded a prize due to high performance evaluation from students

## Education

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### University of Queensland

Bachelor of Engineering (Honours) (Software Engineering) / Bachelor of Science (Mathematics)

2014–2019

- Software focus in distributed and concurrent programming, program verification
- Mathematics focus in operations research and abstract algebra
- Honours thesis: "Proving Consistency of an Abstract Algebra for Verification of Concurrent Programs"
- President of UQ Computing Society 2015–2017
- Awarded the "ICT Excellence Scholarship" 2014

## Presentations

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**PyCon Australia 2017:** Gradual Typing in Python

**PyCon Australia 2018:** Task Queues: A Celery Story

## Certifications

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**Google Cloud Platform:** Professional Data Engineer

**Amazon Web Services:** Business Professional