

Experience

Clai Studios

Mar 2024 - Present*Full Stack Engineer**San Rafael, CA*

- Consultated for a pain management web application using React and Firebase, improving treatment outcomes and client onboarding through personalized routine planning and digital coaching.
- Implemented marketing agency automations to web scrape and schedule content posting using Python, GCP, and Selenium, **increasing output by 5x**

Tangible AI

Oct 2023 - Jan 2024*Machine Learning Engineer Intern**San Diego, CA*

- Developed and evaluated a seq-to-seq neural network translator using PyTorch, featuring two GRU layers.
- Proofread and published edits to 'Natural Language Processing in Action,' improving clarity in **10 chapters**.
- Developed a vector-based search engine leveraging BERT to improve corpus searchability, resulting in an **88% improvement** in recall over TF-IDF. Later forked to create 'Knowt,' an open-source RAG project.
- Presented findings and insights to **30+ attendees** at a Python User Group, with an [accompanying blog post](#).

Adelaide MRI

Jul 2021 - Oct 2023*Full Stack Engineer**Adelaide, SA*

- Developed and maintained RadReport, a radiology reporting system that enabled 2 radiologists to generate **100+ reports daily**, significantly increasing productivity and accuracy compared to conventional systems.
- Created an invoicing service using MediPass payment API and webhooks to reduce the errors and inconveniences.
- Led rostering system migration from React to Angular, improving maintainability and reducing dev overhead.
- Wrote and maintained unit tests with PyTest (**90%+ coverage**) and end-to-end tests using Cypress.
- Led the development of a patient booking system using React, GCP, and FastAPI, alleviating call burden **by 50%**.

Projects

Deep Work Timer | NextJS, Docker, AWS, Redis, Postgres, Jotai, GraphQL, Strawberry, FastAPI, SQLAlchemy

- Developed a productivity application to optimize focus tracking through a streak-based social ranking system.
- Integrated authentication and authorization using Redis and PostgreSQL for fast, secure session management.
- Implemented a **containerized development** environment with Docker, enhancing consistency and portability.
- Experimented with distributed microservice architecture using RabbitMQ to enhance scalability and fault tolerance.

Portfolio | Next.js, Tailwind CSS, Framer Motion, MDX, Vercel

- Developed a portfolio website utilizing React and Markdown to showcase projects, services, and insights.

Devarity | PHP, MySQL, Python, Bootstrap, JQuery

- Developed an indie game distribution platform providing fairer profit margins, launching with over **50 titles**.
- Led strategic decision-making across design, marketing, product management, engineering, and launch operations.

Skills

Languages	Python, JavaScript, TypeScript, SQL, HTML/CSS, Bash
Technologies	React, Angular, Redux, RxJS, Docker, Flask, FastAPI, Postgres, MongoDB, Redis, Celery, RabbitMQ, PyTorch, PyTest, Cypress, Sentry, Selenium, GCP, AWS
Concepts	Full-Stack Development, Front-End Development, System Design, State Management, Agile, Scrum, Machine Learning, Data Science, Distributed Systems, REST API, GraphQL API, Unit Testing, End-to-End Testing, Version Control, Git, CI/CD, Reactive Programming

Education

Bachelor of Mathematical Sciences

Jul 2022 - Dec 2023*University of Adelaide**Adelaide, SA*

- Accelerated linear algebra and calculus classes foundational for computer science and machine learning.

Bachelor of Economics and Finance

Mar 2018 - Nov 2020*University of Adelaide**Adelaide, SA*

- Foundations in modern and classical economic theory with application of financial modelling, statistics and data analytics.