Ethan Cavill

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San Francisco Bay Area, California

[linkedin](#) | [github](#) | [portfolio](#)

Experience

Clai Studios — **Mar 2024 - Present**

Full Stack Engineer — *San Francisco, CA*

- Consulted on key architectural and design decisions for a startup improving pain-management outcomes for clients.
- Implemented automations to web scrape and schedule social media content using Python, GCP, and Selenium, **increasing output by 3x**.
- Consulted with a founder on software architecture, feature development, and talent acquisition strategies for their health-ed startup.

Tangible AI — **Oct 2023 - Jan 2024**

Machine Learning Engineer Intern — *San Diego, CA*

- Developed and evaluated a seq-to-seq neural network translator for language translation using PyTorch.
- Improved the user experience of Django based LLM and rule-based chatbot management system by reducing bugs.
- Developed a vector-based (BERT) search engine to improve corpus searchability, resulting in an **88% improvement** in recall over TF-IDF. Forked to create 'Knowt', an open-source RAG project.
- Presented findings on information retrieval systems to **30+ attendees** at a Python User Group, with [blog](#).
- Proofread and published edits to 'Natural Language Processing in Action', improving clarity in **10 chapters**.

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**, increasing productivity and report accuracy by **2-4x** over conventional systems.
- Planned and developed invoicing software integrating MediPass payment API and webhooks to reduce billing errors.
- Led migration of internal rostering system from React to Angular, improving maintainability.
- 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%**.
- Managed large codebase version upgrades, often requiring refactoring of business critical components.
- Implemented strict linting, compiler settings and other tooling to improve DX and reduce sentry errors **by 30%**.
- Aided in conducting engineering interviews, evaluating candidate's technical skills and cultural fit.

Projects

deepworktimer.io | Next.js, FastAPI, SQLAlchemy, PostgreSQL, Redis, Docker, Linode, AWS

- Developed a productivity system to enhance motivation and engagement on mentally demanding tasks, featuring a streak-based social ranking system.
- Integrated authentication and authorization using Redis and PostgreSQL for fast, secure session management.
- Implemented **containerized** environments with Docker, improving deployment and developer onboarding time.
- Experimented with RabbitMQ and distributed microservice architectures to enhance scalability and fault tolerance.
- Mentored a CS student on contributing to open source, providing hands-on experience in full-stack development.

ethancavill.me | Next.js, Tailwind CSS, Framer Motion, MDX, Vercel

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

devarity.com | PHP, MySQL, Bootstrap, JQuery

- Developed an indie game distribution platform providing fairer profit margins, launching with over **50 titles**.
- Spearheaded distributor acquisition efforts, securing partnerships with **four** indie publishing studios.
- Led strategic decision-making across design, marketing, product management, engineering, and launch operations.
- Coordinated outsourcing of design and engineering efforts to aid in timely and seamless launch.

Skills

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

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.