# Ethan Cavill

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### Experience \_

#### Full Stack Engineer

Mar 2024 - Present

Clai Studios San Rafael, CA

- Consulted on the development of a web application for Egoscue pain management using React and Firebase. The project goal is to enhance efficacy and expand the client base through generative routine planning and digital coaching.
- Planned and developed automation services for a marketing agency that increased output by 5x. Services included social platform schedulers and analytics using GCP, web scraping using Selenium, and streamlining of hiring processes through systemisation.

#### ML/Python/DS/NLP Engineering Intern

Oct 2023 - Jan 2024

Tangible A1

San Diego, CA

- · Acquired practical experience in natural language processing through application of advanced machine learning and data science techniques. Developed a sequence-to-sequence neural network translator, developing an intuition for model architecture, training, attention mechanisms, and feature engineering.
- Presented findings and insights from final project at San Diego Python User Group. The project, a vector-based search engine, leveraged TF-IDF and BERT models and was forked to create 'Knowt', an open-source RAG project.
- Technologies: Joblib, numpy, pandas, scikit-learn, sentence-transformers, spaCy, PyTorch.

Full Stack Engineer

Jul 2021 - Oct 2023

Adelaide MRI

Adelaide, SA

- Developed a comprehensive suite of software products to support clinical practices at Adelaide MRI. RadReport, a radiology reporting system, significantly improved report accuracy, detail, and throughput with advanced data and image analysis – increasing output upto 10x.
- Developed and maintained several other in-house software products to support 100+ employees and 200+ daily customers. Products included employee rostering, patient management, invoice management, web configurators, and booking systems.
- Technologies: Angular, RxJS, Docker, Redis, Flask, React, SQLAlchemy, Celery, PyTest, Cypress, Sentry, Jinja, Postgres.

#### **Projects**

Deep Work Timer

Jan 2024 - Present

- Developed a productivity tool inspired by Cal Newport's 'Deep Work,' designed to optimize focus tracking in a novel way that improves usage retention through clearly defined streaks and social ranking.
- Technologies: NextJS, Docker, AWS, Redis, Postgres, Jotai, GraphQL, Strawberry, FastAPI, SQLModel

Portfolio

- Designed and developed a portfolio website showcasing my projects, services, and insights.
- Technologies: Next, Tailwind CSS, Framer motion, MDX, Vercel

Devarity

Jan 2014 - Jun 2015

May 2020 - Present

- Developed an indie game distribution platform offering fairer profit margins and a unique customer experience, featuring over 50 games at launch.
- Technologies: PHP, MySQL, Python, Bootstrap, JQuery

# Skills $_{-}$

**Technologies** 

Python, JavaScript, TypeScript, React, Angular, Redux, RxJS, Docker, Flask, Postgres, Redis, Celery, PyTorch, PyTest, Cypress, Sentry

Concepts

Functional programming, System Design, Microservices, Containerisation, 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 – 6/7 GPA.

## 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 -6.25/7 GPA.