

Alfred Madere

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EXPERIENCE

Cofounder / Full Stack Engineer / Product Manager

July 2023 – Present

PaperWatch

- Designed and built an AI driven research platform, deployed at paperwatch.io.
- Implemented web app in NextJs as well as an ingestion pipeline and RAG api in python.
- Defined feature set, priorities, and UX.

Product Manager / Front End Developer

Nov. 2022 – July. 2023

Psychlytics

San Luis Obispo, CA

- Designed and built an MVP entirely from scratch in 8 months amidst rapidly evolving requirements.
- The MVP I built was deployed in trials with Power 5 and Big 10 conference schools.

Cloud Engineer Intern

June. 2022 – Sept. 2022

Earbug

Austin, TX

- Built a news-site content scraper and analyzer in NodeJS using puppeteer and AWS comprehend NLP. Deployed on AWS lambda with postgresql + S3 for storage and integration with other system components.

CEO / Cofounder

Jul. 2020 – Sept. 2021

Ivy Advantage Tutoring Company

Austin, TX

- I cofounded this successful online tutoring company during the Covid pandemic, and grew it to **\$80k annual revenue** and 30 contract tutors with a net margin of 35% in less than a year.
- Cut time resolving scheduling conflicts by 70% after building and deploying a custom tutor to client availability resolver, capable of handling tutor specialties and zoom room resource constraints.
- Built a fully automated text-reminders system with Twillio to address the pervasive 'no-show problem'. This led to improved customer satisfaction, and increased revenue by **virtually eliminating no-show sessions**.

Developer Intern

May. 2020 – Sept. 2020

What's My Wine

Austin, TX

- Automated unit test suite creation for the business-critical progressive web application, applying knowledge of Cucumber & Selenium with Rspec, resulting in improved system's stability and scalability.

Product Design Intern

Nov. 2018 – Aug. 2020

Master AI

Austin, TX

- Designed aspects of UX for online robotics courses intended to introduce the younger generation to machine learning.

EDUCATION

California Polytechnic State University

Aug. 2021 – May 2025

B.S. Computer Science, AI concentration | GPA: 3.9+/4.0

San Luis Obispo, CA

- Relevant Courses:** Speech and Language Processing, Knowledge Based Systems
- Honors:** Dean's List, On track for Summa Cum Laude standing

PROJECTS

Distributed Password Cracking | Educational demo

March. 2024

- Achieved **supercomputer-level performance** of 100k hashes per second at a cost of 8 cents per minute.
- Engineered a resilient scalable architecture capable of achieving any desired hashing rate via parallel workers, demonstrating its danger in for real-world situations.
- Documented and shared insights in a detailed article, showcasing the system's capabilities and implications for password security. Find it [here](#).

TECHNICAL SKILLS

Languages: Typescript, SQL, Python (nlTK, llama-index, Scipy, Scikit-learn, Pandas, Matplotlib etc.), C, Java, Ruby
Technologies: NextJs, Node.js, React.js, Prisma, Fastapi, Postgresql, Git, AWS cloud services (SQS, S3, CloudWatch, ECS etc)