Ernest Zachary Aditya

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Education

University of California, Berkeley	August 2025

Bachelor of Arts in Data Science | GPA: 3.4

Diablo Valley College (DVC)	May 2023

Applied Mathematics | GPA: 3.9

Professional Experience

Aetherum.ai – Full-Stack Engineer | San Francisco, CA　　　　　　　　April 2025 - December 2025
- Designed and implemented financial models to assess credit-worthiness of users to reduce risk exposure to cryptocurrency market volatility.
- Built an internal web app for scenario testing and validation of underwriting models, improving iteration speed and enabling faster, safer releases.
- Built React dashboards for real-time portfolio tracking, achieving 100% beta onboarding and high user retention through iterative UI updates.

Spero Studios - Research Assistant | San Francisco, CA　　　　　　　October 2022 – December 2022
- Analyzed 20+ top-performing arcade games using Google Trends and Twitch Tracker to identify SEA market trends
- Proposed data-backed game aesthetics that helped the team place 3rd out of 100+ competitors at the Polygon Development Hackathon.
- Collaborated cross-functionally to deliver research insights that improved design efficiency by 15% and streamlined the product roadmap.

Diablo Valley College Math Faculty – Tutor and Teaching Assistant | Pleasant Hill, CA　　September 2022 - May 2023
- Tutored 10–20 students weekly on topics ranging from precalculus to linear algebra and differential equations.
- Collaborated with a professor for a precalculus class to assist a class of 30+ students, clarifying complex mathematical concepts during lectures and providing support for in-class questions.

Bercerita– Teaching Intern | Pleasant Hill, CA　　　　　　　　　　September 2022 - May 2023
- Taught English to a class of 10 Indonesian students from underprivileged rural neighborhoods via Zoom, improving language proficiency and confidence in communication.

Personal Projects

Full Stack E-Commerce Project　　　　　　　　　　　　　　　　　　January 2026
- Developed a full-stack Next.js/FastAPI e-commerce platform with a catalog and search-to-checkout pipeline.
- Architected a RAG-based AI shopping assistant via Ollama that delivers structured, catalog-grounded recommendations to accelerate product discovery and user conversion.

Spotify Playlist Recommender　　　　　　　　　　　　　　　　　　March 2025
- Engineered an ML-driven playlist builder using similarity-based ranking to deliver real-time, context-aware track recommendations.

S&P 500 Predictor　　　　　　　　　　　　　　　　　　　　　　November 2024
- Developed a machine learning model using a Random Forest Classifier to predict S&P 500 stock price movements
- Achieved a testing precision score of 67% by engineering key financial features and optimizing hyperparameters.

Extracurricular Activities

DVC Blockchain – Vice President and Co-Founding Officer | Pleasant Hill, CA　　September 2022 - May 2023
- Co-founded and led a blockchain-focused student organization with ten main team members, growing a community to 200+ followers through strategic social media campaigns and outreach initiatives.
- Spearheaded the planning and execution of a workshop featuring a prominent blockchain startup founder, attracting and engaging over 80 attendees.
- Collaborated with a team to promote blockchain education, foster networking opportunities, and establish the organization as a hub for blockchain enthusiasts on campus.

DVC Project Bracket – Project Manager | Pleasant Hill, CA　　　　　September 2022 - December 2022
- Directed a team of developers in designing and building an onboarding Android app for Contra Costa College students using Kotlin, enhancing the student onboarding experience.
- Facilitated weekly meetings to track progress, resolve challenges, and ensure timely delivery of project milestones

Skills

Programming: Python, Typescript, HTML, CSS, JavaScript, SQL, R, Java, C++, Kotlin, Solidity
Data Science: TensorFlow, Scikit-Learn, PyTorch, Seaborn, Matplotlib, Pandas, Microsoft Excel,
Frameworks / Tools: NextJS, FastAPI, Vite, React Native, Vercel, Git, Flask, Ollama, OpenAI, Anthropic