## **Dharshan Bellan**

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**EXPERIENCE Founding Engineer** Jul 2025 - Present Giggles Platforms Inc. San Francisco, CA · First engineering hire; architected entire social media backend from scratch, scaling to 20k DAU and 75k+ users • Cut Firebase read costs by ~80%, and migrated full backend to Supabase with custom migration scripts • Built Al-driven vector based recommendation engine using Vertex AI + Pinecone, powering personalized video feeds

• Deployed distributed infra on Railway, optimized for speed, cost, and scalability under load

• Engineered Node.js + Fastify + Redis microservices with async media pipelines, HLS conversion, and Al analysis

Software Engineer

Mar 2025 - Jul 2025 San Francisco, CA

- Built a computer vision pipeline for test video analysis, cutting manual review time by ~30% across 100+ tests/week
- Added support for a new vehicle simulation protocol, expanding coverage from 2 to 3 simulation types
- Rebuilding reporting tool into a full-stack FastAPI web app for 20+ engineers, enabling interactive test result reporting
- · Collaborate with QA, embedded, and AI teams to build scalable automation tools and improve test system reliability.

## **Software Engineering Resident**

Jul 2024 - Jun 2025

Headstarter San Francisco, CA

- · Built 14+ machine learning, ai-engineering, and full-stack projects in fast-paced software team environments
- · Developed neural networks in Python, and 11 apps in Typescript on AWS/Vercel with dev and production environments
- Implemented agentic AI, Ilm-chaining, etc, on 10+ LLM models
- · Coached by Google Machine Learning, Google Kubernetes, Two Sigma, Tesla, Figma, and Citadel Engineers

**Software Engineering Intern** Jun 2024 - Aug 2024

MandrakeTech

- Remote • Developed a full-stack web app using Flask and PostgreSQL to help users manage job applications
- · Implemented ScrapingDog API to scrape job listings from LinkedIn, enhancing job search automation
- Deployed the application on Heroku, achieving 50+ visits and 30+ user sign-ups

**Machine Learning Intern** Nov 2023 - May 2024

S#AI

Motive

- · Built a GPT model from scratch in PyTorch, implementing tokenization, training, and inference
- Trained a character-level GPT model using AdamW optimizer on a T4 GPU in Google Colab to generate text=

HACKATHON WINS

storybook | Team Project (~32 hours) - GitHub Link

· Won \$1000 (2nd Place Best Al App) from Story Foundation for an interactive Al-powered document builder

· Designed a canvas-style UI in Next.js and Tailwind with draggable blocks and embedded chatbots

Integrated OpenAl API to return JSON-formatted data, dynamically rendering tables in HTML

**AI PROJECTS** 

TikTok Clone | Team Project (~30 hours) - GitHub Link - Demo Built a TikTok-style recommendation system using vector embeddings for personalized video feeds Aug 2024

Remote

Oct 2024

- Developed a scalable recommendation pipeline with Next.js, TypeScript, Neon, Drizzle, and OpenAl embeddings
- · Optimized user engagement tracking using cosine similarity and a learning rate-based update strategy

vzn | Published Web-App 20 Users (~30 hours) - GitHub Link - Demo • Created an Al-powered vision board generator with Next. is and Firebase, reaching 20+ users Dec 2024

- Implemented Stable Diffusion sdxl-turbo model on HuggingFace via Modal with sub-30s latency
- · Optimized cloud storage using Cloudflare R2 and AWS S3 API for efficient image retrieval

ReviewPal | Team Project (~30 hours) - GitHub Link

Aug 2024

- Developed a full-stack application with React, Node, and Express to generates product summaries from YouTube videos
- · Scraped video transcripts using YouTube Data API and generated summaries with Gemini API

aptrak | Published Web-App 50 Users (~40 hours) - GitHub Link

Jun 2024 - Aug 2024

- · Developed full stack job tracking application using Flask, PostgreSQL, and Jinja
- · Implemented OpenAI API to generate AI-powered cover letters from job descriptions and resumes
- · Designed an intuitive UI with JavaScript, HTML, and CSS, enhancing user experience

**SKILLS** 

Languages/Frameworks Python (4yrs) · JavaScript (3yrs) · React (2yrs) · Next.js (1yr) · Node.js (1yr) · Flask (1yr)

Software Firebase · Vercel · Heroku · JupyterNotebook · Google Colab · Git · Bash

**EDUCATION** 

**Diablo Valley College** 

Associate of Science in Computer Science | 4.0 GPA