Bazil Ahmad

bazahmad26@gmail.com | (424)375-5295 | linkedin.com/in/bazil-ahmad/ | github.com/BazilAhmad

Education

University of California, Berkeley Aug 2022 - Dec 2025
BS in Electrical Engineering and Computer Science, *Honors Program* GPA: 3.72

Coursework: Machine Learning, Optimization Models in Engineering, Operating Systems (Linux), Probability & Random Processes, Discrete Math & Probability, Data Structures & Algorithms, Efficient Algorithms & Intractable Problems, Computer Architecture, Operating Systems, Cybersecurity, Designing Devices & Systems I & II, Linear Algebra, Calculus I–III, Physics I & II

Experience

CityStream [$250K Pre-Seed], Founding Software Engineer *(Berkeley, CA)* Aug 2025 – Present

- Broke a monolith into 12 microservices on GCP Cloud Run/Vercel with ∼25 shared packages; added GitHub Actions CI/CD (blue-green, per-service autoscaling), cutting p95 API latency 420 ms→230 ms (∼45%) and cutting deploy time by ∼80%.
- Built Go/TypeScript REST APIs on Firestore & extended "Sandy" (internal LLM chatbot) with MCP tools + multi-agent workflows to draft agendas and generate packets; reduced per-meeting prep time by ∼70%, saving the clerk's office ∼6–8 hours/week.

Amazon, Software Development Engineer Intern *(Sunnyvale, CA)* May 2025 – Aug 2025

- Designed Alexa+'s GEM (Group & Endpoint) LLM expert, consolidating two services; eliminated TLN misroutes & improved response accuracy by 10% (8% routing fix, 2% API simplification). Deployed to production on AWS Lambda & Fargate (ECS).
- Delivered a staged migration: shipped a production-ready Lambda GEM expert (Java) to meet time-to-market, then migrated the expert to AWS Fargate; cut p95 cold-start latency by ∼80%. API changes were backward compatible to work with live code.
- Raised harness test coverage by +10% and led feature-level QA testing; authored consolidation design docs and regression checks, coordinated dependency/version updates, and ensured GEM architecture to be compatible with Lambda and Fargate.

Model Predictive Control Laboratory, Undergraduate Researcher *(UC Berkeley)* June 2024 – May 2025

- Built a real-time telemetry pipeline (C & Python) and visual dashboard (OpenGL & ImGui) for GPS/IMU/RGB-D streams; engineered timestamp alignment, rate matching, and buffering to keep sensors in sync and cut mission execution time by ∼20%.
- Developed ROS bag tools for data replay/labeling and offline analysis of missions; added downsampling, outlier rejection, and batch export to Python notebooks for visual analysis, accelerating data processing and field debugging across test runs.

GenPF, Software Engineer *(Berkeley, CA)* Aug 2024 – Jan 2025

- Designed and implemented a Python-based ML algorithm to identify and recommend top predictive time-series features from 500+ candidates, leveraging PCA, T-SNE, and Markov models to enhance interpretability and reduce collinearity by 95%.
- Optimized walk-forward testing methodology using 20 years of historical financial data (5000+ data points) to ensure out-of-sample predictive accuracy, improving feature selection efficiency by 40% and reducing runtime by 30%.

Alecto AI, Software Engineer *(Berkeley, CA)* June 2024 – Aug 2024

- Built the core face-matching pipeline with OpenCV & MTCNN detection and FaceNet embeddings; optimized preprocessing, batch inference, and cosine-similarity matching for real time (30+ FPS) across varied lighting, pose, and occlusion.
- Designed and deployed a weighted classifier pipeline using Keras and TensorFlow, optimizing it with data augmentation and transfer learning, boosting user identity prediction accuracy by 60% for diverse datasets, including occluded images.

Boeing Aerospace, Intern *(El Segundo, CA)* May 2021 – Aug 2021

Projects

Up Rise AI *(python)* Spring 2025

- Developed a vision-based AI agent to play Up Rise, a Flappy Bird-style game, to reach levels +50, using a CNN with temporal frame stacking & hybrid supervised + Deep Q-Learning; built an OpenCV pipeline for bird & pipe detection to generate inputs.

Yelp Clone *(javascript, SQL)* Spring 2024

- Developed a full-stack restaurant review platform with React, Express.js, and PostgreSQL; built RESTful APIs and crafted UI with Bootstrap/custom CSS, adding client-side validation and error handling for seamless navigation and improved UX.

Habitly *(swift)* Summer 2023

- Built 'Habitly' in Swift with AWS DynamoDB and a Linear Regression model to predict household restocking needs; achieved 200 sign-ups in two weeks & boosted interaction by 25% through direct ordering, Agile management, UI/UX improvements.

Skills

Languages: Python, Go (GoLang), Java, C, Scheme, SQL, HTML, Swift, CSS, Javascript, Typescript, X86/RISC-V Assembly

Software Skills: Data Structures, Algorithms, Object-Oriented Programming, Parallelism (OpenMP, OpenMPI, SIMD), OpenCV, Convolutional Neural Networks (CNN), Git/GitHub, Redis, Node.js, Express, Axios, PSQL, RESTful API, Terraform, TensorFlow, Bootstrap, Cryptography, Web Security, Network Security, Computer Security, AWS Console, ImGui, OpenGL, Scikit-learn

Interests: Football, Golf, Brandon Sanderson, Physics, Quantum Computing, Anime, Philosophy, Exploring Coffee Shops