

EDUCATION

University of California, Berkeley
B.S. in Electrical Engineering & Computer Science
Folsom Lake College
GPA: 4.0/4.0 · Transferring to UC Berkeley EECS

Berkeley, CA
Expected Dec 2028
Folsom, CA
June 2024 – June 2026

WORK EXPERIENCE

Zilix · Founders Inc. (F.inc) Off Season II | zilix.app
Founding Engineer & CTO

San Francisco, CA
Jun 2026 – Present

- o Brought frontier AI coding into regulated enterprise codebases, reaching **30+ developers** including those at **Bank of America, Micron, Mirdain Systems**, etc.
- o Designed the governance model that made that adoption possible: organization policy that can only **take permissions away and never grant them**, with every consequential action an agent takes held for a human decision **before it runs** rather than reviewed after the fact.
- o Gave engineering leaders the oversight audited teams require – a **tamper-evident record** of every agent action, approval, and dollar spent across the fleet, so an organization can show exactly what its agents did and what it cost.
- o Made agent work safe to run in parallel across a team, surfacing collisions between concurrent sessions as a **decision for a person** instead of a silent overwrite discovered later.

Protelo, Inc.
Junior Software Developer

Folsom, CA
Apr 2026 – Present

- o Shipped **RightPhone** to **1,000+ daily active users** across enterprise customer organizations – a unified communications platform that replaced 3 separate tools by integrating RingCentral WebRTC with NetSuite CRM behind a single Next.js interface, with all call and SMS activity auto-logged to the CRM.
- o Built the **real-time signaling and session layer** using WebSockets with JWT / OAuth 2.0 authentication, securing concurrent enterprise sessions across multi-tenant customer organizations.
- o Cut NetSuite reporting cycles **from hours to minutes** by architecting **RightInsight**, a multi-tenant SaaS analytics platform (Next.js/TypeScript + Node.js REST API on MongoDB/Mongoose) that ingests NetSuite saved-search data and routes it through Gemini 2.5 for AI-driven insights – deployed to Railway via a Bitbucket-based CI pipeline.

PROJECTS (MATHEWROLF.COM)

CouchMo – *Best Club Project, FLC++*
Python, PyTorch, Stable-Baselines3, ROS 2, Gazebo, Docker, ONNX Runtime, OpenCV

Demo Video

- o Won **Best Club Project** at FLC++ for building an **autonomous self-driving couch** that trains a behavioral cloning policy in a containerized Gazebo + ROS 2 simulator on rollouts from an Intelligent Driver Model expert, then fine-tunes with PPO via Stable-Baselines3 and deploys via ONNX Runtime to an ESP32-driven chassis.

AgentClipz – *1st Place, Autonomous Agents Hackathon (200 participants)*
Python, FFmpeg, Twitch API, Modulate, Reka, Instagram Graph API

Devpost

- o Won **1st place out of 200 participants** at the Autonomous Agents Hackathon (hosted at AWS Builder Loft) by building an agent that identifies peak-engagement stream moments using chat velocity, keyword trends, and real-time emotion analysis – collapsing a ~2 hour manual editing workflow into a ~30 second autonomous pipeline.
- o Engineered the end-to-end media pipeline: FFmpeg audio extraction → Modulate REST API for transcription and emotion labels → Reka caption generation → Instagram Graph API auto-publish.

LEADERSHIP

FLC++ (Folsom Lake College Coding Club)
President

Folsom, CA
June 2025 – June 2026

- o Grew the official Folsom Lake College coding club to **322 members** and managed **5 officers**, running technical workshops, hackathons, and engineering projects including CouchMo (Best Club Project).

SKILLS

Languages: Python, Java, C++, Rust, JavaScript/TypeScript, SQL, HTML/CSS
ML & Data: PyTorch, TorchRL, Stable-Baselines3, TensorFlow, ONNX Runtime, OpenCV, Pandas, Jupyter
Web & Backend: React, Next.js, Node.js, Electron, Express, Django, Flask, REST, WebSockets, WebRTC, JWT/OAuth 2.0
Infrastructure & Databases: AWS, Docker, Vercel, Railway, GitHub Actions (CI/CD), ROS 2, Bitbucket, Git, PostgreSQL, MongoDB, MySQL