



Kartikeya Kumaria

Full-Stack Software Developer — B.S. Computer Science, UC Santa Cruz

kartikeyaku@gmail.com • linkedin.com/in/kartikeya-kumaria • github.com/karti722

ABOUT

My name is Kartikeya Kumaria and I'm a driven software developer who has completed a Bachelor of Science in Computer Science from the [University of California, Santa Cruz](#). What motivates me is turning ideas into something real, taking concepts from paper and developing them into fully functional applications with tools, experiences, and interfaces that make people's lives easier. I enjoy working across the stack, designing clean and responsive front ends while building the logic that powers them. I value both the problem-solving side of engineering and the human side of collaboration, including brainstorming with others, learning from different perspectives, and iterating toward better solutions together. I am the kind of person who sticks with a challenge until it is solved, believes in learning by doing, and sees every project as an opportunity to grow. Above all, I want to create technology that feels thoughtful, software that not only works well but also connects with the people who use it.

6 Roles Held **6** Projects Shipped **4** Certifications

SKILLS

Languages

Python, JavaScript, TypeScript, C, C++

AI / ML ●

LLM APIs (Anthropic Claude), Retrieval-Augmented Generation (RAG), Embeddings, AI Agents, Model Context Protocol (MCP), Prompt Engineering, Vector Databases (pgvector, HNSW), LLM Evaluation

Databases

PostgreSQL, MySQL, MongoDB, Firestore, pgvector

Frameworks & Libraries

React.js, Next.js, Node.js, Nest.js, Express, FastAPI, Django REST Framework (DRF), Sequelize

Tools & Platforms

Docker, AWS, GCP, Azure, Git, GitHub, CI/CD, CodeQL

EXPERIENCE

AI Enabler Apprentice @ Redminds Latest

Jan 12th, 2026 – July 10th, 2026

- Shipped end-to-end features across a clinical case management platform, including a clinician due-date system, case notifications, and autosave for case review and editing.
- Enriched the case summary view with 39 additional database fields via two new reusable React components.
- Delivered mobile responsiveness across the entire platform in a 12-commit, 35-file pull request while maintaining CodeQL compliance.
- Partnered with the AI engineering team to integrate a FastAPI/Gemini microservice that auto-extracts structured data from uploaded clinical PDFs.

Software Developer @ UCSC BLUEPRINT

Feb 1st, 2024 – Feb 12th, 2026

- Built and deployed a volunteer registration mobile app (Expo, React Native) for a nonprofit arts center, cutting sign-up time 60% and lifting conversions 40%.
- Translated 12+ Figma components into responsive iOS/Android UI, improving cross-device compatibility by 95%.
- Integrated Firebase Firestore and Authentication with custom error handling, improving profile load times 30% and cutting failed logins 50%.
- Designed and launched YFIOB, a K-12 career-discovery web app with 100% test coverage, onboarding 5+ contributors.

Full Stack Developer Intern @ PACR

Jul 15th, 2025 – Dec 15th, 2025

- Integrated the backend Search API into 10+ frontend components, improving user engagement 25% and cutting query latency 35%.
- Built and documented 8+ React pages spanning login, registration, profile, and research search experiences.
- Automated environment setup, linting, and CI workflows with Node.js, MongoDB, Docker, and AWS, cutting new-developer onboarding time 50%.

Webmaster @ CruzHacks 2025

Oct 1st, 2024 – Apr 12th, 2025

- Implemented Figma designs for the CruzHacks website, contributing to a 20% increase in task completion.
- Built 15+ reusable React components, cutting future development time by 30%.
- Led weekly team meetings, boosting collaboration by 25%.

Backend Developer Intern @ SKYIT (Subsidiary of GBCS Group)

Apr 1st, 2024 – Aug 15th, 2024

- Restored client onboarding functionality by cleaning null entries in MySQL and correcting CSV inputs.
- Developed a Django REST API endpoint to validate the authentication flow and verified database schema mappings.
- Onboarded 3 backend developer interns and reduced internal bug reports by 20%.

Software Engineer Intern @ CodeDay

Oct 1st, 2023 – Dec 15th, 2023

- Implemented BTU conversion functionality for the Open Energy Dashboard, merging a public pull request.
- Built a JavaScript-based conversion engine for CSV energy data with Mocha.js unit and integration tests.
- Documented the implementation and testing process in a 12-page write-up on test-driven development.

PROJECTS

AI Nexus - Full-Stack AI Engineering Learning Platform Live

July 16th 2026 – July 23, 2026 · [GitHub Repository](#)

- Built a full-stack AI engineering platform spanning 10 interactive chapters covering RAG, AI agents, MCP tool-calling, prompt engineering, and applied concerns like caching and evaluation, each backed by a real working implementation instead of a mockup.
- Architected a polyglot microservices system across 4 containerized services (Next.js, Express, FastAPI, MCP server) communicating over REST and MCP's stdio protocol, run locally with Docker Compose and deployed to Google Cloud Run in production.
- Integrated real hosted AI APIs — Anthropic Claude (chat, agent tool-calling, token counting), Voyage AI (embeddings), and WeatherAPI.com (a live external tool call through a custom MCP server) — alongside hand-rolled algorithms (TextRank summarization, semantic caching, ROUGE-L/embedding-based evaluation) for the concepts best learned by implementing them directly.
- Built a pgvector-backed PostgreSQL vector store with HNSW indexing for real RAG retrieval, and a custom MCP client/server pair exposing tools to the AI agent over stdio.
- Deployed the full stack to Google Cloud Run on a \$0/month architecture (serverless Postgres, Secret Manager, Artifact Registry) and automated redeployment with a GitHub Actions CI/CD pipeline authenticated via Workload Identity Federation, no long-lived service-account keys.
- [Demo Video](#)

LogBlog - AI-Powered Full-Stack Blog Platform Live

June 4 – July 10, 2025 · [GitHub Repository](#)

- Developed comprehensive full-stack blog platform with AI tutorial generation using Django REST Framework.
- Built responsive frontend with React, Vite, Tailwind, and Context API.
- Engineered ML pipeline using SentenceTransformer, PyTorch, and NLP tools.
- Deployed microservices: Railway (backend), Supabase (DB), Vercel (frontend).
- Implemented tutorial tracking, ratings, categorization, and ML suggestions.
- [Demo Video](#)

SurveyKarrot - Full-Stack Survey Platform Live

July 18 – September 9, 2025 · [GitHub Repository](#)

- Built full-stack survey platform with React, TypeScript, Node.js, Express.
- Implemented JWT auth, role-based access, and PostgreSQL integration.
- Features include survey creation, submissions, and responsive dashboard.
- Tested backend with Jest and deployed on Vercel.
- Clean TypeScript codebase with ESLint and documentation.
- [Demo Video](#)

Evil Number Guessing Game Live

Aug 2024 · [GitHub Repository](#)

- Built full-stack guessing game with Node.js backend and MongoDB.
- Implemented sound effects, dynamic UI states, and game logic APIs.
- Real-time feedback and surrender functionality.
- [Demo Video](#)

Task Manager App Live

Feb – May 2025 · [GitHub Repository](#)

- Built full-stack app with React, Redux, Node.js, Express, PostgreSQL.
- Implemented JWT authentication and REST APIs.
- Optimized backend performance and UI responsiveness.
- [Demo Video](#)

TicTacToeWithEmotionAI Prototype

Collaborated with Peters

- Built AI-driven Tic-Tac-Toe using emotion recognition via webcam.
- Trained models using TensorFlow/Keras for emotion classification.
- Integrated OpenCV for real-time image capture.

LICENSES & CERTIFICATIONS

PACR Internship Certificate of Completion

Issuer: PACR, Corp. | **Issued:** Dec 2025

Role: Fullstack Development Intern

Skills: React, Next.js, Frontend Development, Form Validation, Functional Programming

WEB 101 - Intro to Web Development

Issuer: CodePath | **Issued:** Dec 2024

Skills: HTML, CSS, JavaScript

SkyIT Internship Certificate of Completion

Issuer: SkyIT Services (GBCS Group) | **Issued:** Aug 2024

Skills: Django REST Framework, Python, MySQL, JSON, Postman, Leadership

CodeDay Labs Micro-Intern

Issuer: Canvas Credentials | **Issued:** Apr 2024

Credential ID: 6629141bb1afdc68657da11e

Skills: Node.js, Mocha.js, Docker, Teamwork, Test Automation