

Divik Chotani

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EDUCATION

Bachelor of Engineering in Computer Science

University of California, Los Angeles

Oct. 2023 – June 2027

Los Angeles, CA

EXPERIENCE

Undergraduate Research Assistant

UCLA

Mar. 2025 – Present

Los Angeles, CA

- Worked in Python on the `/bin/pash` project (5k+ stars) to parallelize shell scripts and improve runtime.
- Developed a library in Python and Bash to implement parallel versions of common shell commands like `ls` and `cat`.
- Created an eBPF program in C, C++, and Rust to monitor system calls, interrupts, and network packets on Linux, enabling dependency tracking and file access auditing.

Software Engineering Intern

Validia

Sep. 2024 – Jan. 2025

San Francisco, CA

- Developed a Chrome extension using React and Node.js to protect websites via facial authentication.
- Created a web app in raw HTML, CSS, and JavaScript with a Flask backend to detect deepfake videos in interviews.
- Boosted audio deepfake detection accuracy by 20% (measured on 1,000+ audio samples) using PyTorch.
- Implemented a Fast Fourier Transform (FFT) to extract frequency-domain features from audio clips, improving detection performance.

Software Engineering Intern

Pixii AI

June 2024 – Sept. 2024 & June 2025 – Sept. 2025

Boston, MA

- June 2024 – Sept. 2024: Developed a Slackbot with Nest.js and PostgreSQL to generate 30 days of AI-powered ad content in under 30 seconds, automating marketing across 50+ social media accounts.
- June 2025 – Sept. 2025: Built a social media scheduler in TypeScript using React, Nest.js, and Docker to plan and publish posts, greatly reducing manual marketing workload.
- June 2025 – Sept. 2025: Implemented a usage tracker with PostHog, Next.js, and Node.js to analyze user behavior and inform UI improvements, boosting user return rate to 24%.

PROJECTS

Co-op Minesweeper | TypeScript, Node.js, React, PostgreSQL, Docker

June 2024 – Dec. 2024

- Developed a full-stack web application with Node.js serving a REST API and React frontend for seamless gameplay and user management.
- Implemented secure authentication with hashed and salted passwords; integrated a PostgreSQL database to store user profiles, scores, and game history.
- Leveraged Socket.io to enable real-time multiplayer functionality, allowing multiple players to collaborate on the same Minesweeper board with instant updates.

Amazon and Shopify Listing Grader | TypeScript, Node.js, React, SQLite3

June 2025 – Sept. 2025

- Built a web app and embedded Shopify app to evaluate and score product listings across Amazon and Shopify.
- Created a responsive React frontend to present AI-powered reviews and detailed grading of each product listing element.
- Implemented a Node.js and Prisma backend with SQLite3 caching to reduce API calls and improve response times.

TECHNICAL SKILLS

Languages: Java, Python, C/C++/C#, SQL, JavaScript, HTML/CSS, Rust, Go, BPF

Frameworks: React, Next.js, Node.js, Flask, WordPress, Material-UI, Tailwind, FastAPI, Vue.js, Svelte, Angular, Django, .NET, Spring Boot

Developer Tools: Git, Docker, Google Cloud Platform, MongoDB, Redis, DynamoDB, GraphQL, bpftool

Libraries: pandas, NumPy, Matplotlib, scikit-learn, PyTorch, libbpf, linux-headers, Axios, Vite, TypeORM, Socket.io