Borna Niknahad

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EDUCATION

University of California, Davis

Davis, CA

B.S. in Computer Science and Engineering

Expected Graduation Spring 2025

EXPERIENCE

 \mathbf{Circle}

Remote

Software Engineer (Contract)

Jan 2025 - Present

• Building an AI-powered Image-to-3D and Image-to-Video system with metered billing using USDC and Circle APIs

ASUCD Innovation and Research Lab

Davis, CA

Lead Software Engineer

Oct 2024 - Present

- Lead and manage ucdhacknight.com, supporting 50+ students weekly in building and shipping impactful projects
- Manage a \$40K budget to facilitate Hack Nights, allocating up to \$5K in grants across 12 hand-selected student-led projects to help bring their ideas to life and mentoring teams through the ideation, debugging, and deployment stages

Vimbly Group

New York, NY

Software Engineer Intern

May 2024 - Aug 2024

- Deployed a scalable email & SMS verification system for *Mobile Text Alerts* in **TypeScript** and **React**, reducing account fraud by **28%** and driving the app's trial-to-paid account conversion rate by **6%** across **20,000+** businesses
- Optimized complex MySQL queries and restructured backend database schemas in Node.js, improving data retrieval efficiency and reducing the average query time for conversations on the Inbox page from 3.5s to less than 400ms
- Documented and resolved all **iOS** and **Android** platform related issues, leading debugging efforts and collaborating with cross-functional teams daily to ensure a stable, high-quality mobile application for over 20,000 businesses

Vimbly Group New York, NY

Software Engineer Intern

May 2023 - Aug 2023

- Drove 5,000+ new weekly users by leading end-to-end development of core mobile app features in **TypeScript** and **React Native**, including a redesigned Settings screen and seamless onboarding experience for new users on the app
- Revamped and upgraded the admin platform's infrastructure and frontend using **React** and **Node.js**, saving the customer support team and the company over **120** hours per month in complaint resolution time
- Led QA efforts by owning the testing life cycle, from writing unit tests to CI/CD pipeline validation across platforms

PROJECTS

End-To-End ASL Translation with Machine Learning | (GitHub)

Python, PyTorch, OpenCV, MediaPipe, TensorFlow, React Native, Typescript, XCode

- Developed a full-stack app that translates ASL gestures into speech using computer vision and deep learning
- Trained a gesture recognition model with TensorFlow, MediaPipe, and OpenCV, integrating it into a React
 Native app with a Flask backend hosted on AWS for low-latency, on-device inference and real-time voice output

Training Tool

Java, Spring Boot, PostgreSQL, Typescript, React, AWS S3, API Development, Docker

- Built an online learning platform for Davis' largest software and design agency using **Java** and **TypeScript**, implementing user authentication in **Spring Boot** and improving scalability for over **200+** active users
- Developed fully functioning CRUD routes and implemented a **PostgreSQL** relational database with normalized schemas and efficient table relationships—reducing query latency and improving overall response times by 40%

AI-Powered Minesweeper Agent | (GitHub)

Python, Keras, Tensorflow

- Developed and trained a scalable **Double Deep Q-Network (DDQN)** AI agent to play Minesweeper at expert difficulty, achieving a 28% win rate over 25,000 games using CNNs and deep **reinforcement learning**
- Designed a custom OpenAI Gym-style environment in **Python** using **Keras** and Prioritized Experience Replay (PER) to improve agent convergence speed and stabalize DDQN training over 25k episodes

TECHNICAL SKILLS

Languages: Typescript, Python, JavaScript, Java, C, C++, MySQL, HTML/CSS, Golang, Swift (iOS)

Technologies: Node.js, PostgreSQL, Git, React.js, Docker, Next.js, React Native, Express.js, AWS, Tensorflow, XCode, Redux **Concepts**: Data Structures and Algorithms, System Design and Development, Object-Oriented Programming, RESTful APIs, Backend, Full-Stack Development, Mobile App Development, Data Analysis, Agile Methodologies, Testing & Debugging