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

ASUCD Innovation and Research Lab — Davis, CA
Lead Software Developer — *Oct 2024 - Present*

- Lead and manage **ucdhacknight.com**, where I guide **50+** students in building technically complex personal projects

Vimbly Group — Manhattan, NY
Senior Software Engineer Intern — *May 2024 - Aug 2024*

- Engineered core full-stack features and mobile app screens for *Mobile Text Alerts*, a prominent SMS marketing platform that sends **100M+** messages across **20,000+** businesses with over eight figures in annual revenue
- Built and deployed a scalable Email & SMS verification system for the mobile app in **React Native** and **TypeScript**, reducing account fraud by **22%** and driving the app's trial-to-paid account conversion rate by **8%**
- Elevated backend performance by restructuring key data-handling workflows in **Node.js** and **React** alongside optimizing **MySQL** queries, achieving significant reductions in render time and CPU usage
- Documented and resolved all **Android** and **iOS** related issues, collaborating closely with cross-functional teams to deliver a high-quality, error-free application

BillionMinds — Remote
Software Engineer Intern — *Sep 2023 - Dec 2023*

- Built two comprehensive web dashboards for *BillionMinds* to showcase real-time adaptibility and resilience metrics using **Next.js**, **MongoDB**, and **Express** for optimized performance and data management
- Led the development and refinement of multiple **Next.js** prototypes into a cohesive production-ready product, nearly cutting the development cycle in **half** through efficient project management and iterative feedback with the client
- Implemented data aggregation with **AWS Lambda** serverless functions, reducing data processing latency by **40%** and enhancing dashboard responsiveness

Vimbly Group — Manhattan, NY
Software Engineer Intern — *May 2023 - Aug 2023*

- Developed key mobile app features and screens for *Mobile Text Alerts* such as multi-factor authentication and the Settings Screen in **React Native** and **Typescript** to deliver a reliable and responsive application, leading to an increase of **+5,000** weekly visitors
- Redesigned and optimized the admin platform's infrastructure and frontend with **React** and **Node.js**, resulting in nearly a **33%** reduction in complaint resolution times and a significant boost in customer support efficiency
- Maintained a focus on code quality, performance optimization, and adherence to industry standards throughout the development process

Projects

Minesweeper DDQN | *Machine Learning*

- 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
- Designed a custom Minesweeper environment in **Python** following **OpenAI Gym** conventions, enabling reinforcement learning with prioritized experience replay **(PER)**

Training Tool | *Java*

- Built an online learning platform for Davis' largest software and design agency using **Java** and **Typescript**, vastly enhancing the platform's scalability and performance for over **200+** active users
- Designed and optimized comprehensive relational database schemas in **PostgreSQL**, improving query efficiency and data retrieval process by **60%**

Technical Skills

Languages	Java, Typescript, Javascript, C/C++, Python, Go, Swift, HTML/CSS, SQL, R, Kotlin, x86 Assembly
Frameworks	React.js, Next.js, React Native, Node.js, Redux, Spring Boot, SwiftUI, Express.js, Mongoose, PyTorch
Technologies	PostgreSQL, XCode, Android Studio, MongoDB, Vercel, MySQL, Git, AWS, Postman, Docker, Linux
Coursework	Advanced Algorithm Design & Analysis, Artificial Intelligence, Operating Systems, Computer Architecture Data Structures & Algorithms, Object-Oriented Programming, Machine Learning, Embedded Systems