"Jake" Zhi Wang

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EDUCATION

University of Illinois Urbana-Champaign   Expected Dec 2024
Master of Computer Science   *GPA: 4.0*
Relevant Courses: Software Engineering I, Topics in Software Engineering, Applied Machine Learning, Cloud Networking, Database Systems, Cloud Computing Applications, Advanced Data Management

University of Minnesota-Twin Cities   Dec 2020
Bachelor of Computer Engineering   *GPA: 3.5*
Relevant Courses: Internet Programming, Comp Arch & Machine Org, Intro to OS, Intro to Intelligent Robotic Systems, Formal Lang & Autom, Animation & Planning in Games, Programming Graphics and Games

WORK EXPERIENCE

Foundry Co   Minneapolis, MN
Full Stack Software Engineer   *Jun 2021 - Aug 2023*

- Collaborated with UX and engineering teams to plan and implement numerous in-demand features across 6 concurrent apps, employing technologies such as Next.js, Node.js, Nest.js, and React.js
- Engaged in development and maintenance for a high-traffic Java site serving over 50,000 users with Spring & Vue.js
- Reduced web page response times by over 10 seconds by refactoring a complex Express.js & MongoDB back-end to Nest.js & PostgreSQL, leveraging Prisma ORM for data management and Jest for unit testing
- Enhanced features and resolved bugs for a biking mobile app on the App Store, utilizing React Native & Expo for the front-end and NestJS & PostgreSQL for the back-end, integrating Google Maps for route calculations
- Implemented a client portal website within 2 weeks to improve communication and better monitor project progress between project managers and clients, using React.js & Node.js
- Designed and built quality RESTful APIs for various applications and integrated APIs across multiple projects
- Contributed to software design and conducted code reviews to improve code quality and maintainability

PROJECTS

Lil Networking: Networking Building and Management Multi-Platform App   May 2024 - Aug 2024
The app designed to help people form intentional networking habits that lead to professional relationships

- Designed and implemented a multi-platform Progressive Web App using Next.js and a native mobile app using Expo
- Created user-friendly interfaces using TailwindCSS and Material-UI to facilitate easy navigation and interaction
- Utilized OAuth login thru LinkedIn and Google for secure user authentication and personalized configurations
- Leveraged Prisma ORM for seamless interaction with PostgreSQL, enabling efficient data management and retrieval
- Set up push notifications using web-push to keep users engaged and informed about networking opportunities

ACADEMIC EXPERIENCE

University of Illinois Urbana-Champaign   Champaign, IL
Graduate Course Assistant - Database Systems   *May 2024 - Present*

- Assisted in teaching Database Systems, supporting students in their learning journey by answering database-related questions and monitoring their progress
- Designed, tested, and graded SQL, MySQL, MongoDB, and Neo4j machine problems to ensure alignment with course objectives and student learning outcomes
- Collaborated closely with teaching staff to enhance course content and delivery, contributing to a dynamic learning environment

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Java, SQL, Python, C/C++, HTML, CSS, Bash, Fortran
Frameworks & Tools: React.js, Next.js, Node.js, Nest.js, React Native, Expo, Express.js, Spring, Vue.js, Redux, Jest, NoSQL, MySQL, PostgreSQL, MongoDB, Supabase, Git, Docker, GitHub, AWS, GCP, Vercel, BitBucket, GitLab, Heroku, Monorepo, VScode, IntelliJ, Jira, Favro

PUBLICATIONS

Journal of Physics D: Applied Physics   2021
Numerical Simulations of Hydrogen Interstitial Diffusion and Ferroelectricity Degradation in Lead Titanate Films