”Jake” Zhi Wang

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zhiwang-portfolio.vercel.app

EDUCATION

University of Illinois Urbana-Champaign Expected May 2025
Master of Computer Science ***GPA: 4.0***
Relevant Courses: Cloud Networking, Cloud Computing Applications, Database Systems, Applied Machine Learning

University of Minnesota Twin Cities Dec 2020
Bachelor of Computer Engineering
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

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Java, SQL, Python, C/C++, HTML, CSS, Bash, Fortran

Frameworks & Tools: Git, React.js, Next.js, Node.js, Nest.js, PostgreSQL, Expo, React Native, Express.js, Spring, Visual Studio, MongoDB, Vercel, Docker, Github, BitBucket, GitLab, AWS, Heroku, Prisma, Supabase, IntelliJ, Matlab, Jira, Favro
Spoken Languages: English, Mandarin, & Shanghainese

WORK EXPERIENCE

University of Illinois Urbana-Champaign Champaign, IL
Graduate Course Assistant *June 2024 - Present*

- Assisted in teaching CS411 - Database Systems, supporting students in their learning journey by answering questions and monitoring their progress
- Designed, tested, and graded coursework 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

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

- Engaged in full-stack web development and maintenance for a high-traffic site, serving over 50,000 users, utilizing Spring and Vue.js
- Collaborated across teams, including UX and engineering, to plan and implement numerous in-demand features across 6 apps, utilizing technologies like Next.js, Node.js, Nest.js, and React.js
- Independently developed a multi-platform Progressive Web App using Next.js and a native mobile app using Expo to help people form networking habits
- Teamed up with another engineer to rapidly create a Slack app to providing an efficient solution for recording pool matches, leveraging Supabase serverless functions
- Improved page response times by over 10 seconds by refactoring a complex express.js and MongoDB back-end into Nest.js and Prisma
- Coordinated with the team to define execution plans and efficiently managed tasks using Jira and Favro
- Professionally interacted with clients to grasp their needs and provide daily technical assistance

University of St. Thomas St. Paul, MN
Undergraduate Research Assistant *Feb 2018 - Aug 2018*

- Studied defects in ferroelectric materials by analyzing data and change-related parameters in Fortran
- Used Matlab to develop graphs to map data, and assist the team to better visualize the data
- Submitted formulas to Minnesota SuperComputing Institute for more efficient processing
- Collaborated with other research assistants to combine and analyze our results
- Designed and wrote a manual for further research

PUBLICATIONS

Journal of Physics D: Applied Physics 2021
Numerical Simulations of Hydrogen Interstitial Diffusion and Ferroelectricity Degradation in Lead Titanate Films
Jeong Ho You, Lin Zhu, Cooper Gray, Zhi Wang and Changdong Yeo