

ZIJIAN ZHONG

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EDUCATION

University of Southern California

Los Angeles, CA

Master of Science in Computer Science | 3.6/4.0 GPA

August 2022 - May 2024

University at Buffalo

Buffalo, NY

Bachelor of Science in Computer Science | 3.7/4.0 GPA with high distinction

August 2018 - May 2022

Minor in Mathematics

TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++, C#, JavaScript, TypeScript, Scala, OCaml, SQL, HTML, CSS

Frameworks & Libraries: React, Angular, Spring Boot, REST API, Bootstrap, Tailwind, Flutter, Node.js

Cloud & DevOps: AWS (EC2, S3, Lambda, RDS, CloudFormation), GCP (App Engine), Docker, Kubernetes, Git, CI/CD

Database: MySQL, MongoDB, PostgreSQL

PROFESSIONAL EXPERIENCE

Research Assistant (Software Engineer) – University at Buffalo

January 2021 - September 2021

- Collaborated with interdisciplinary teams in Agile/Scrum environment to refine app design, improving navigation and accessibility features.
- Increased user engagement by 20% and daily active users by 15% through optimized UI and accessibility improvements.
- Built Python pipelines to process large-scale stress datasets and co-authored publication in Smart Health.

PROJECTS

eBay Shopping Platform

Angular, NodeJS, Java, JavaScript, MongoDB, Google Cloud, Bootstrap

- Built a full-stack Angular + Node.js e-commerce platform with eBay RESTful API, deployed on Google Cloud for scalability and high availability.
- Boosted site performance by 30% via responsive UI and modular microservices architecture.
- Implemented OAuth 2.0 and JWT authentication for secure sessions.
- Implemented cross-platform capability with Java to provide seamless experience for users who use mobile app.
- Automated delivery with CI/CD pipelines and applied TDD for maintainable, production-ready code.

Text Chat Application

C++, Socket Programming, TCP, Networking

- Developed client-server messaging app with socket programming, supporting unicast/broadcast messages.
- Implemented offline messaging queues and optimized for reliable communication under high concurrency.

Ray Tracing

C++, OpenGL, Computer Graphics

- Built a ray tracing graph engine for rendering complex surfaces with realistic lighting, shadows, and anti-aliasing.
- Applied supersampling and multithreaded optimization, improving computation efficiency by 50%.

CERTIFICATIONS

- AWS Certified Solutions Architect - Associate, AWS
- AWS Certified Developer - Associate, AWS

PUBLICATIONS

- Li, H., Zheng, E., Zhong, Z., Xu, C., Roma, N., Lamkin, S., Von Visger, T. T., Chang, Y.-P., & Xu, W. (2022). Stress prediction using micro-EMA and machine learning during COVID-19 social isolation. Smart Health, 23, 100242.