

Zheyi Zhuang

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Education

- Carnegie Mellon University, School of Computer Science December 2026
- Master of Software Engineering
 - Relevant Coursework: Design Patterns, Product Managements, Statistics for Decision Making, Formal Methods
- University of Washington, Paul G. Allen School of Computer Science December 2022
- Bachelor of Science in Computer Science
 - Cumulative Grade Point Average: 3.85/4.0; Dean's List: 13 quarters
 - Relevant Coursework: Machine Learning, Natural Language Processing, Operating Systems, Algorithms, Computer Graphics

Professional Experience

- Microsoft Corporation (C) April 2023 - October 2024
- Software Engineer I – Team CMD AI Devices*
- Architected and delivered an end-to-end people identification system in Microsoft Teams meeting rooms, expanding AI capabilities to legacy hardware and improving accessibility for enterprise clients.
 - Engineered and optimized a real-time face detection pipeline processing 1080p video at 30fps with 99% accuracy, directly enhancing meeting experiences for 10M+ global users.
 - Collaborated cross-functionally with security and compliance teams to design a privacy-first face enrollment pipeline.
 - Enhanced multilingual voice recognition capabilities, raising accuracy to 95% across 40+ languages, improving inclusivity for international Teams adoption.
 - Instituted a robust testing framework with 95% code coverage for AI/ML components, cutting regression incidents by 30%.
- BeaconFire Inc., New Jersey (Remote) August 2022 - December 2022
- Full-Stack Engineer*
- Spearheaded internal management platform and activated scalable frontend infrastructure for developer onboarding.
 - Streamlined CI/CD pipelines to deploy internal tools, shortening deployment times by 10 mins per release.
 - Wrote 100+ unit/component/automated tests to ensure zero downtime in CI/CD releases.

Academic Experience

- University of Washington, Seattle June 2021 - August 2022
- Web Development Teaching Assistant*
- Taught and supported 40+ students in advanced web development concepts and algorithms.
 - Mentored students in software design principles and led code reviews for student projects.
- Sensors, Energy, and Automation Laboratory, University of Washington February 2020 - June 2021
- Software Engineer - Research DevOps Team*
- Led development of a research-oriented content management system enabling real-time data analysis for 500+ daily entries.
 - Designed and automated a research data processing microservice, eliminating 30-hour human labor per week.

Projects

- Cypress — Collaborative Knowledge Management Platform, Independent Project
- Architected and implemented a Notion-like platform supporting real-time collaborative document editing and version control.
 - Implemented BERT-based NLP algorithms for real-time text analysis, summarization, and document retrieval.

Skills

Programming Languages: JavaScript/TypeScript, Python, Go, Java, C++, C#, Shell Scripting.
Frontend Tools: React, NextJS, Redux, Apollo Client, Jest, Tailwind CSS, shadcn/ui.
Backend Tools: NextJS, Apollo Server, NodeJS, Gin, Java Spring Boot.
Architectures & Services: RESTful APIs, GraphQL APIs, Microservices.
Machine Learning: PyTorch, TensorFlow, HuggingFace, Scikit-learn, Computer Vision, NLP, BERT.
CI/CD & Tools: Linux/Unix, Git, Docker, Kubernetes, Azure Pipeline, GitHub Actions.
Databases: PostgreSQL, MongoDB, Redis, Azure Cosmos DB.
Cloud Platforms: Azure (ML, DevOps, AAD), Supabase, AWS (EC2, S3, Lambda).