

# Zheyi Zhuang

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## Education

Carnegie Mellon University, School of Computer Science | Master of Software Engineering December 2026

- Estimated Cumulative Grade Point Average: 3.9/4.0
- Relevant Coursework: Cloud Computing, Distributed Systems, Quality Assurance, API Design, Software Architecture

University of Washington, Paul G. Allen School of Computer Science | Bachelor of Computer Science December 2022

- 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*

- Shipped privacy-first people identification for Teams Rooms, enabling advanced/legacy room hardware and expanding accessibility for 10M+ meeting participants with zero P0 incidents post-launch.
- Optimized a 1080p@30fps face detection pipeline (ONNX Runtime + CPU optimizations), sustaining ~99% detection accuracy with ~22ms p95 latency and trimming GPU cost by ~8%.
- Reinforced face enrollment flows with PII minimization and retention controls to meet enterprise privacy requirements and pass internal audits.
- Instituted automation tests for AI/ML services to 99% coverage, reducing regression incidents by 30%.

BeaconFire Inc., New Jersey (Remote) August 2022 - December 2022

*Full-Stack Engineer*

- Engineered internal management platform UI (React/Next.js) and onboarding flows so new teams could self-serve setup and configurations, speeding time-to-first-commit from 7 days to 1 day for 50 teams.
- Delivered API layer and persistence (Express + Redis) with auth and audit logging to guard internal workflows, serving 700 internal users at ~99.9% uptime.
- Streamlined CI/CD pipelines (GitHub Actions) to cut release time by ~10 minutes per deploy and stabilize rollback reliability.

## Academic Experience

University of Washington, Seattle June 2021 - August 2022

*Web Development Teaching Assistant*

- Taught 40+ students on advanced web development and algorithms; ran weekly code reviews labs with actionable feedback.
- Started project review checklists and CI gating, increasing assignment pass consistency and code quality.

Sensors, Energy, and Automation Laboratory, University of Washington February 2020 - June 2021

*Software Engineer - Research DevOps Team*

- Built a research CMS and data pipeline handling 500+ daily entries with real-time analysis dashboards.
- Automated the research data processing microservice, eliminating ~30 hours/week of manual effort.

## Projects

Cypress — Collaborative Knowledge Management Platform, Independent Project

- Designed and implemented a Notion-like editor with real-time collaborative document editing and version history with p95 latency under ~100ms for 10 concurrent editors.
- Integrated AI assistants for page summaries and action items using embeddings search plus OpenAI APIs, reducing time to digest shared docs for collaborating teams.

## Skills

Languages: TypeScript, JavaScript, Python, C++, C#, Go, Java, SQL, Bash.

Frontend: React, Next.js (App Router), Redux, React Query/SWR, Apollo Client, Tailwind CSS, shadcn/ui, Jest, Playwright.

Backend: GraphQL (Apollo Server), REST, gRPC, WebSocket, Node.js, Express, Java Spring Boot.

Data Storage: PostgreSQL, MongoDB, Redis, Azure Cosmos DB.

Cloud & Infra: Azure (AKS, AAD, Key Vault, App Service, Azure ML, Azure DevOps), AWS (EC2, S3, Lambda), Supabase, Docker.

CI/CD & DevOps: Azure Pipelines, GitHub Actions, Git, Linux/Unix, feature flags.

ML & AI: ONNX Runtime, PyTorch, TensorFlow, HuggingFace, scikit-learn, computer vision, NLP.