

HOANG TRAN

Seattle, WA

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Education

Oregon State University

Graduation: March 2026

Bachelor of Computer Science GPA: 3.67/4.0

- Honor Roll (2022—2024)
- **Relevant Coursework:** Computer Network, Data Structures and Algorithms, Operating Systems, Software Engineering

Work Experience

Software Developer – C#, .NET, Python, Docker, SQL

Feb 2025 – Current

Oregon State University's Center for Applied Systems and Software

Corvallis, OR

- Engineered an ETL synchronization pipeline between Salesforce Cloud and on-prem databases.
 - * Reduced sync runtime by 70% by introducing parallel execution and optimizing query output to prevent race conditions.
 - * Processed 40,000+ student records daily with automated validation and scheduling system via Windows service.
- Automated the deployment of R workflows to AWS, GCP, and Azure serverless functions using GitHub Actions.
- Improved test coverage and execution speed by optimizing schema and output validation strategies for R packages.

Undergraduate Research Assistant – Swift, Python, LLM integration

Jun 2024 – September 2024

Oregon State University's College of Engineering

Corvallis, OR

- Built a full-stack iOS application with Swift and Python backend to deliver personalized daily article summaries.
- Implemented an NLP pipeline leveraging the GPT-4 API for automated key-content extraction and summary generation.

Undergraduate Teaching Assistant – GitHub, Agile

Mar 2023 – Jun 2023

Oregon State University's College of Engineering

Corvallis, OR

- Guided a cohort of 10+ students in applying Agile development practices and GitHub workflows to improve collaboration, sprint planning, and project delivery.
- Evaluated and provided actionable feedback on software design and requirements documentation, enhancing students' understanding of real-world development processes.

Projects

Multiplayer Board Game Platform – Next.js, Socket.io, Redis

Dec 2024 – Current

- Delivered a real-time multiplayer poker platform for 2-player concurrent sessions with sub-100ms latency using Next.js, TypeScript, and ASP.NET Core SignalR.
- Optimized API response time by 60% with Redis caching and efficient game state management.
- Achieved stable server connection with robust room management, automatic cleanup, and comprehensive error handling for seamless multiplayer experience.

AI-Powered Business Strategy Tool – PostgreSQL, LlamaIndex, Vue.js

Sep 2024 – June 2025

- Reduced manual data entry time by integrating AI-driven automation into a SaaS business strategy platform.
- Enabled semantic and context-aware queries by integrating LlamaIndex with PostgreSQL pgvector and a custom Index Manager, allowing AI agents to retrieve business insights with natural-language prompts.
- Enhanced user engagement by developing a cognitive memory system that uses LlamaIndex to cache past interactions and personalize AI responses based on user preferences.

Microblogging Platform – AWS Lambda, API Gateway, S3, RDS

Sep 2023 – Dec 2023

- Deployed full-stack social media application on AWS using ECS Fargate for containerized Flask backend, S3/CloudFront for React frontend, and Application Load Balancer for traffic routing across production environment.
- Implemented DynamoDB with Global Secondary Index for real-time messaging, optimizing access patterns for conversation threads and message groups with single-table design.

Technical Skills

Languages: C#, Python, Swift, JavaScript/TypeScript, SQL, R, C, C++, HTML/CSS, Linux Shell.

Technologies: .NET 8, React, Lambda, S3, API Gateway, Docker, GitHub Actions.

Databases: RDBMS (MySQL, PostgreSQL), NoSQL (CosmosDB, MongoDB)