

Viet H. Pham

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EDUCATION

University of Houston | Houston, TX

May 2024

B.S. in Computer Science, with a minor in Mathematics

Cumulative GPA: 3.35

- **Relevant Coursework:** Data Structures and Algorithms, Database Systems, Fundamentals of Software Engineering, Software Design, Programming Languages and Paradigms, Operating Systems

TECHNICAL SKILLS

- **Languages:** Java, JavaScript, TypeScript, Python, C++, HTML5, CSS, SQL
- **Frameworks/Libraries:** Spring Boot, Express.js, Next.js, React.js, Redux, RTK Query, Tailwind CSS
- **Developer Tools:** Git, GitHub, npm, postman, AWS, MySQL, Docker
- **Concepts:** OOP, Agile Methodology, JWT Authentication, CI/CD

EXPERIENCE

IT Help Desk

September 2021 - December 2021

Lone Star College

The Woodlands, TX

- Resolved **95%** of user login and Outlook configuration issues within 15 minutes by providing phone-based technical support for **100+** Windows environment users.
- Decreased network downtime by **40%** through proactive troubleshooting of connectivity issues by configuring static IP addresses and mapping network drives for **50+** workstations.
- Enhanced system performance for **85%** of reported cases by leveraging Task Manager and Command Prompt to diagnose and eliminate resource bottlenecks affecting **50+** users.

PROJECTS

Endurofy | [Website](#) | [Front-end](#) | [Back-end](#)

TypeScript, Next.js, Express.js, MySQL, Redux

- Accelerated personal fitness tracking efficiency by **80%** for **20+** beta users by architecting and deploying a comprehensive full-stack application with real-time data synchronization.
- Achieved **99.2%** uptime and **sub-200ms API** response by implementing **MySQL** database architecture with **Express.js RESTful API** backend and **Next.js** frontend using **shadcn/ui** components library.
- Integrated **third-party APIs** (Apple Health, MyFitnessPal, Cronometer) to enhance data sync and user retention.
- Consolidated 4 separate fitness tracking workflows into a unified platform, reducing user app-switching by **75%** and improving data accuracy by **60%**.

Online Python Code Editor | [Website](#) | [Source Code](#)

C++, React.js, Express.js

- Built a custom **Python** interpreter from scratch in **C++** that achieved **80-85%** execution speed parity with native **Python** across **100+** benchmarks tests.
- Delivered real-time code execution feedback with **<500ms** latency by engineering **Express.js RESTful API** that processes user code through custom interpreter and streams output to **React.js** frontend.
- Processed 1,000+ code submissions during testing phase with 98% accuracy rate.

Zoo Webapp | [Preview](#) | [Source Code](#)

HTML, CSS, JavaScript, MySQL

- Developed a **full-stack** web app to streamline zoo operations and improve visitor experience.
- Optimized data retrieval performance by **90%** through **RESTful API** implementation, achieving consistent **<10ms** response times for database queries involving **50,000+** animal records.
- Improved data reliability by **99.5%** and reduced storage costs by **30%** by migrating to **AWS RDS** cloud infrastructure, enabling scalable storage for **5+** years of operational data.

3 Agents Reinforcement Learning Model | [Source Code](#) | [Paper](#)

Python

- Increased task completion efficiency by **65%** over random movement baseline by developing PD World environment where 3 autonomous agents coordinate block pickup and delivery operations.
- Achieved **92%** optimal path discovery rate by implementing **SARSA** and **Q-Learning** algorithms with dynamic Q-table updates across **10,000+** training episodes.

OTHER INFORMATION & INTERESTS

Spoken languages: Fluent in English and Vietnamese

Interests: Software Development, Machine Learning and Artificial Intelligence, Data Science