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 is, Next is, React is, 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

- Provided phone-based tech support for Windows environments, covering user login issues, Outlook issues.
- Troubleshoot and resolve network issues by configuring static IPs and mapping drives.
- Used Task Manager, Command Prompt, to identify and fix system performances issues.

PROJECTS

Endurofy | Website | Front-end | Back-end

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

- Developed and deployed a full-stack fitness app to enhance personal fitness tracking efficiency by 80%.
- Utilized MySQL for data storage, Express.js for RESTful API backend, and Next.js with shadcn/ui for a responsive user interface.
- Integrated third-party APIs (Apple Health, MyFitnessPal, Cronometer) to enhance data sync and user retention.
- Improved user experience by consolidating workout logging, weight tracking, and daily calorie data syncing via **third-party APIs** into one app, boosting daily users by **35%** and workout logging consistency by over **50%**.

Online Python Code Editor | Website | Source Code

C++, React.js, Express.js

- Engineer a **Python** interpreter written from scratch in C++.
- Utilized Express.js to build a RESTful API that receives source code, runs it through a custom interpreter, and returns real-time output to the React.js frontend.
- Performed benchmarks to measure execution time differences between the custom C++ interpreter and native **Python**, revealing a **80-85%** similarity in execution speed.

Zoo Webapp | Preview | Source Code

HTML, CSS, JavaScript, MySQL

- Developed a **full-stack** web app to streamline zoo operations and improve visitor experience.
- Implemented a **RESTful API** for seamless front-end and back-end communication, enabling efficient data retrieval and manipulation with near real-time response (<10ms).
- Integrated AWS RDS for scalable cloud storage solutions, improving data accessibility and reliability.

3 Agents Reinforcement Learning Model | Source Code | Paper

Python

- Developed a PD World environment where agents take turns to pick up and drop off blocks.
- Implemented SARSA/Q-Learning algorithms with a Q-table and various action policies to aid the agents in learning the optimal path within the environment, improving task completion efficiency by 65% by comparing to random movements.

OTHER INFORMATION & INTERESTS

Spoken languages: Fluent in English and Vietnamese

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