Ethan Phan

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EDUCATION

University at Buffalo, The State University of New York

Buffalo, NY

Bachelor of Science in Computer Science

August 2021 - December 2024

• GPA: 4.000, Honors: Pride of New York Scholarship, Dean's List

Experience

Undergraduate Teaching Assistant

August 2022 – Present

University at Buffalo

Buffalo, NY

- Instruct 400+ students on the topics of Data Structures, Societal Computing, and Discrete Mathematics.
- Assist faculty in teaching students by leading students through recitation activities related to topics discussed in lectures.
- Assess assignments from students and provide quantitative and qualitative feedback promptly.
- Collaborate with faculty and consult feedback on issues regarding the class or recommendations for improving the class.

Software Engineering Intern

June 2023 – August 2023

 $M \mathcal{E} T \ Bank$

Buffalo, NY

- Orchestrated Docker integration in M&T Bank's GitLab CI/CD pipelines for smooth deployment of .NET web applications under an Agile environment.
- Pioneered the project's design, resulting in elevated application performance and sustainability across the organization's web portfolio, saving the bank \$1 million annually.
- Developed expertise in Docker, YAML, Angular, C#, and .NET whilst crafting a resilient CI/CD pipeline and a complete web application.
- Attained recognition and an award during the program, underscoring the significance and impact of the project.

Projects

$\textbf{PomoPengy} \mid \textit{Angular}, \; \textit{TypeScript}, \; \textit{SCSS}, \; \textit{Express.js}, \; \textit{MongoDB}$

January 2024 – Present

- Engineering a full-stack, multi-feature productivity application designed to incentivize task completion through achievements.
- Developing the front-end with Angular, focusing on creating reusable components, models, and services.
- Leveraging Express.js to serve the Angular front-end and handle user requests for data retrieval.

Schedule Sync | React, Tailwind CSS, PHP, SQL

January 2024 – May 2024

- Deployed a sophisticated business scheduling and organization web application using React, hosted on an Apache HTTP server.
- Delivered a PHP back-end integrated with a MySQL database to provide seamless data delivery.
- Collaborated in a team of 5 to produce the project, employing Scrum practices to formulate user stories, tasks, and tests, managed on Trello.
- Conducted load testing with over 100 concurrent users during the project's presentation to ensure performance and reliability.

$\mathbf{PengyRL} \mid \mathit{Python}$

November 2023

- Crafted a reinforcement learning framework and employed SARSA, Q-Learning, and Double Q-Learning Algorithms to gain invaluable insights into environmental navigation.
- Optimized the reinforcement algorithms to yield tailored environmental results by performing rigorous hyper-parameter tuning and analyzing the effects of these hyper-parameters on the algorithms.
- Visualized experiment results using pandas, NumPy, and Matplotlib to aid in understanding the algorithm's performance.

TECHNICAL SKILLS

Languages: Python, C/C++, C#, Scala, Java, PHP, TypeScript, JavaScript, HTML/CSS

Web Development: Angular, React, SCSS, Tailwind CSS, .NET, Flask

Technologies: Unix, Git, GitHub, GitLab, VSCode, Figma, MySQL, MongoDB, Docker, XAMPP, Microsoft Suite

Project Management Tools: Trello, Jira, Confluence