

# Ethan Phan

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## EDUCATION

### University at Buffalo, The State University of New York

*Bachelor of Science in Computer Science*

Buffalo, NY

December 2024

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

## EXPERIENCE

### Research Assistant

August 2024 – Present

*Network Science Institute, Northeastern University*

*Remote*

- Configure a system using Python and Selenium to automatically scrape data from 56 Facebook pages, storing data in a MySQL server.
- Apply Natural Language Processing (NLP) techniques to analyze the data, investigating underlying causes of misinformation spread.

### Teaching Assistant

August 2022 – Present

*School of Engineering and Applied Sciences, University at Buffalo*

*Buffalo, NY*

- Instruct 600+ students on topics including Data Structures, Societal Computing, and Discrete Mathematics.
- Assist 5 professors by leading 4 hour-long weekly recitations, answering 50+ student questions weekly, and providing 4+ hours of office hours.
- Assess assignments and provide prompt quantitative and qualitative feedback.
- Provide faculty with feedback on class issues and recommendations for improvement.

### Software Engineer Intern

June 2023 – August 2023

*M&T Bank*

*Buffalo, NY*

- Orchestrated Docker integration in M&T Bank's GitLab CI/CD pipelines for smooth deployment of 200+ .NET web applications under an Agile environment.
- Pioneered project's design, resulting in elevated application performance and sustainability across the organization's web portfolio, saving the bank \$500,000 annually.
- Developed and demonstrated expertise in Docker, YAML, Angular, C#, and .NET by crafting a resilient CI/CD pipeline and a comprehensive web application.
- Recognized and awarded for excellence in team communication and teamwork during the project.

## PROJECTS

### Pomo Pengy | *Angular, TypeScript, SCSS, Express.js, MongoDB*

- Developed a full-stack productivity app with 20+ achievements and badges using Angular and Express.js, focusing on task completion and study session incentives.
- Created a user-friendly front end with 25+ reusable components and built a RESTful API for user authentication and data management.

### Schedule Sync | *React, Tailwind CSS, PHP, MySQL*

- Deployed a React-based business scheduling app with PHP endpoints, hosted on an Apache server, ensuring seamless data delivery.
- Collaborated in a Scrum team of 5, managing tasks on Trello, and conducted load testing with 100+ concurrent users for reliability.

### PengyRL | *Python*

- Developed a reinforcement learning framework using SARSA, Q-Learning, and Double Q-Learning for environmental navigation insights.
- Optimized algorithms through hyperparameter tuning across 10,000+ episodes and visualized results with pandas, NumPy, and Matplotlib.

## TECHNICAL SKILLS

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

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

**Technologies:** Unix, Git, GitHub, GitLab, Node, MySQL, MongoDB, Docker, VSCode, Figma

**Project Management Tools:** Trello, Jira, Confluence