

# Edward Dang

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## Education

### Worcester Polytechnic Institute (WPI)

Bachelor of Science in Computer Science and Data Science

May 2025

Worcester, MA

**Academic Achievements:** Dean's List Fall 2024

Activities: Theta Chi, Society of Asian Scientists and Engineers, Weightlifting, Vietnamese Student Association

## Technical Skills

**Languages:** Java, SQL, Python, JavaScript, HTML, CSS, C

**Tools:** Jira, GitHub, Oracle, Git, AWS, Python Pandas, Tableau, Matplotlib

**Frameworks:** React, Express, Node.js, JUnit, JavaFX, Tailwind

## Work Experience

### Lead Research Assistant

June 2024 - Present

*Worcester Polytechnic Institute*

Remote

- Led and trained a team of 5 high school teachers on secure software development practices through hands-on activities, enhancing their cybersecurity knowledge to prevent school-based attacks
- Developed database diagrams, data flow diagrams, and threat models for a school web application to enhance understanding of system architecture and security
- Presented a demo of payload tampering and cross-site scripting, and techniques to prevent these vulnerabilities
- Built a school database and web application using **HTML**, **CSS**, **PHP**, and **SQL** to have a sandbox for understanding and testing cybersecurity attacks

### Software Engineer

May 2022 - September 2022

*TrampleZone LLC*

Andover, MA

- Designed the back end of a new voting system to enhance the efficiency and user experience of voting
- Utilized **Agile** development methodologies and software design patterns to create maintainable code

### Software Quality Assurance Intern

June 2021 - August 2021

*Constant Contact*

Waltham, MA

- Reduced bugs and improved system reliability with unit testing, achieving a 99% success rate in validation tests
- Collaborated with team to develop an API for small businesses to manage their customers' information using **Java**
- Validated functionality by automating testing and ensured user-friendliness of client-customer software solution

## Projects

### Full-Stack Developer

August 2024 - Present

*360 Energy*

WPI/Indonesia

- Advance electric vehicle adoption in Indonesia by developing solar-powered battery-swapping stations (BSS)
- Built a dashboard to track solar energy collection across 10,000 convenience stores in Indonesia, enabling real-time tracking of solar energy and battery swaps using **React**, **Python**, **JavaScript**, **SQL**, **HTML**, and **CSS**
- Integrated daily energy prediction models to maximize solar energy usage and minimize reliance on grid power
- Developed and deployed an ETL data pipeline to extract, transform, and load solar panel data into our database
- Implemented a monitoring system for BSS to track battery health, charge status, and availability in real-time

### Co-Lead Software Engineer

March 2023 - May 2023

*Brigham & Women's Hospital*

WPI

- Managed a 10-person team using **Jira** to create a hospital management application to manage the hospital's patients, room locations, and inventory using **Java**, **JavaFX**, and **SQL**
- Reduced database retrieval time by 500% for the map editor through sorting algorithm implementation
- Established Google 2-factor authentication and hashing security features to protect user login information
- Implemented an interactive map navigation system so users can find the fastest path to their destination using AI