

# Kevin Siegall (They/Them)

k@siegall.tech ♦ (631) 546-8383 ♦ [k.siegall.tech](https://k.siegall.tech) ♦ [github.com/ksiegall](https://github.com/ksiegall) ♦ [linkedin.com/in/kevin-siegall](https://linkedin.com/in/kevin-siegall)

## EDUCATION

### Worcester Polytechnic Institute

B. S. Computer Science; B. S. Robotics Engineering

May 2025

Worcester, MA

- Relevant Classes: *Deep Learning For Perception, AI for Robotics, Swarm Robotics, Software Engineering, Webware Unified Robotics: Actuation, Sensors, Manipulation, Navigation, Mobile & Ubiquitous Computing*

## WORK EXPERIENCE

### Smartapp.com – Robotics Branch

May 2024 – Aug 2024

#### Autonomy Engineering Intern

Worcester, MA

- Extended upon a Python + React-TS thrust test stand hosted on a RPI, with extensible datalogging and test procedures
- Developed an intuitive and flexible motor library, which enables ‘hot-swapping’ of intelligent motor classes and objects
- Utilized reinforcement learning to train a controller for robotic movement, proving the concept despite limitations.

### OpenSTEM: Experiential Robotics Platform (XRP) Beta

Aug 2022 – Mar 2024

#### Lead Software Developer, Curriculum Author

Worcester, MA

- Spearheaded the development of an extensible open source MicroPython library built for classroom use with small robots
  - Created a web socket server for remote control of the robot
  - Implemented I2C communication with the LSM6 IMU
- More details about the project can be found at <http://experientialrobotics.org>

### Jacobs Technology – Jacobs Software Engineering Center

May 2022 – Aug 2022

#### Software Engineering Intern

Hudson, NH

- Operated in an Agile environment on a WPF-based application running on .NET Framework
- Expanded upon an in-house product, used to add and sort filters to be applied to the DAFIF database
- Exercised object-oriented techniques such as dependency injection and encapsulation in C#

## PROJECTS

### Terrawarden Drone Cleanup - Major Qualifying Project

Aug 2024 – May 2025

- Developing a drone capable of detecting and collecting garbage found on roadsides and highway medians in a team of 6
- Currently working on a custom perception stack to allow for fast + efficient detection of open areas using an Intel RealSense

### Robotic Navigation - SLAM and AMCL

Oct 2023 – Dec 2023

- Utilized a Turtlebot3 robot with a planar LiDAR to implement SLAM in a team of 3
- Robot autonomously navigated and mapped an unknown space, and was able to localize within that space later

### Variants on a Bomberman AI

Jan 2024 – Mar 2024

- Designed multiple variants of an AI to play the classic game, Bomberman, using both adversarial search and reinforcement learning
- The two main variants are Expecti-minimax and Approximate Q-Learning

### Brigham and Women's Hospital Application

Mar 2023 – May 2023

- Led a team of 11 to create a hospital kiosk application, allowing for pathfinding, submitting work orders, and customizing signage
- Utilized Figma to create and iterate on Front-End UI Mockups before implementing in JavaFX
- Implemented Façade, Singleton, and other design patterns for clean integration with the backend SQL Database

## TECHNICAL SKILLS

Languages	Python, Java, C#, C++, C, MATLAB, TypeScript
Frameworks	Arduino, MicroPython, IsaacLab, Unity Game Engine, .NET, Simulink,
Version Control	Git, Kanban, Agile, Github Projects, Azure DevOps, Jira
Other	Nvidia Omniverse, Autodesk Inventor, Figma, Raspberry Pi, Microsoft Office

## EXTRACURRICULARS

WPI Cooking Club, President

April 2023 - Present

WPI XRP Prototyping Club, Treasurer

Aug 2024 - Present

WPI Bowling Club, Treasurer

Aug 2022 – Feb 2023

WPI VexU, Software Co-Lead

Aug 2022 – Feb 2023

Scouting America, Troop 106, Eagle Scout

Mar 2014 – July 2021