

SAMEER AUGUSTINE

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PROFESSIONAL SUMMARY

Robotics Engineering Master's student at Worcester Polytechnic Institute with extensive hands-on experience in robotics hardware and software development. Proficient in multiple programming languages including Python, Java, C, C++, and C#. Certified in Artificial Intelligence and Agile Project Management (Certified Scrum Master and Product Owner). Former FTC Robotics Team Captain with a strong record of competitive success and team leadership. Seeking robotics entry level roles to contribute technical expertise in autonomous systems and robotic control.

TECHNICAL SKILLS

Robotics: ROS2, Arduino, hardware prototyping, sensor integration (IMU, encoders, rangefinder), control systems, KUKA

Programming: Python, Java, C, C++, C#, HTML5

Project Management: Scrum/Agile methodology, team leadership

AI & Machine Learning: TensorFlow, Generative AI

Tools & Software: SolidWorks, Fusion360, Tinkercad, CATIA, MATLAB

Development Tools: Git, VSCode, Anaconda, Microsoft 365 Suite

WORK EXPERIENCE

Automation & Robotics Engineering Intern *Textron Aviation*

June 2026 - Present

- Designed mobility functions for a KUKA UTV-2 E375 3000 omnimove platform
- Interfaced pathfinding utilizing A*, BFS, and SLAM navigation to navigate around obstacles
- Developed and used April Tag detection and alignment code on a Raspberry Pi 5
- Designed a mount for a Raspberry Pi 5 and usb webcam to attach to a KUKA omnimove, gaining continuing experience with 3D modelling and design in a professional manufacturing setting

Internship *SOPTICS AI*

May 2025 – August 2025

- Reviewed Machine Learning models (Linear Regression, Forest Regression, Random Forest)
- Utilized Python in VSCode and Anaconda

Summer Camp Counselor *Building Momentum*

Summer 2023 & 2024

- Designed and delivered hands-on curriculum teaching electronics, robotics, and welding to teens
- Guided students through building microcontroller-based robotic systems and electronic projects
- Troubleshoot hardware and software issues for multiple student projects simultaneously

EDUCATION & RELEVANT COURSEWORK

Worcester Polytechnic Institute, Worcester, MA

B.S./M.S. in Robotics Engineering, Graduation: May 2027

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| <ul style="list-style-type: none">• Software Engineering• Unified Robotics I-IV• Introduction to ECE• Embedded Computing in Engineering Design | <ul style="list-style-type: none">• AI for Robotics• Machine Learning• Introduction to Artificial Intelligence• Global Environment of Business Decision |
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St. Stephens & St. Agnes School, Alexandria, VA

High School Diploma, Attended: 2008-2021

Awarded Dean's List for 6 years.

High School classes in Programming, Robotics, Algebra, Geometry, Trigonometry, AP Calculus AB, English, History, Latin, Chemistry and Physics C.

PROJECT EXPERIENCE

ADArC: Automated Circuit Designer and Code Generator

August 2025 – May 2026

WPI MQP Project

- ADArC is an on-going web-based software project that allows users to select sensors and actuators and automatically generates Arduino circuits and code.
- Worked to add support for new components by mapping circuit logic, coding frontend and backend, and integrated them into the ADArC system. I also created a framework for Arduino Nano and Raspberry Pi Pico rulesets of current ADArC components for future implementation.

Alzheimer's Disease Prediction Using Deep Learning Models on 2D Brain MRIs

January 2026 – May 2026

Graduate Course Project

- This project explored building Artificial Intelligence solutions to classify AD using the OASIS-1 MRI dataset
- Implemented Monte Carlo Dropout in a 2D Convolutional Neural Networks (CNN) to improve model performance and estimate uncertainty.

Perceptions and Impacts of the Venice Entry Fee

March 2024 – June 2024

WPI IQP Project

- Conducted field research on tourism management technology implementation in Venice
- Gathered quantitative and qualitative data through tourist surveys and interviews
- Produced project video including voice-over narration and co-authored detailed findings report

Mass General Brigham Hospital Application – Full Stack Development

January 2024 – March 2024

Scrum Master & Frontend Developer

- Led team using Scrum methodology to develop map kiosk application with pathfinding capabilities
- Implemented frontend components for service request design and statistics visualization
- Facilitated sprint planning and daily scrum meetings for team of 11 developers
- Applied agile principles to ensure on-time delivery of functional application

COMPETITIVE ROBOTICS EXPERIENCE

FTC Robotics Team – Thunderstone 6010 & Iron Giants Robotics 10442

September 2017 – May 2021

St. Stephen's & St. Agnes School, Co-Captain, Captain, Coach, Engineer and Driver

- Led team to win State Innovate Award (2018, 2019) and achieved Finalist Alliance Captain status (2020)
- Qualified for the 2020 FTC World Championship
- Engineered robot hardware systems including custom gripper mechanisms and drive systems
- Designed and implemented custom motor controllers and sensor arrays
- Mentored junior team members on robotics fundamentals and programming techniques
- Directed team strategy, design decisions, and competition preparation

CERTIFICATIONS & HONORS

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| • AI for Product Management: October 2025 | • Generative AI for Project Managers: December 2023 |
| • AI-Assisted Agile Development: July 2024 | • Certified Product Owner: June 2018 |
| • Generative AI for Everyone: July 2024 | • Certified Scrum Master: June 2018 |

ADDITIONAL ACTIVITIES

- Executive Board/Event Manager for WPI Esports Club
- KGM (WPI Kpop Dance Club)
- Volunteer Experience – FACETS, ALIVE!, Catholic Charities, Lamb Center and ACCA