Samara Holmes

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EDUCATION

Worcester Polytechnic Institute, *Worcester MA* Aug 2020 – Present
BS in Robotics Engineering and Computer Science, WPI Presidential Scholarship

RELATED COURSES

Mathematics: Multivariable Calculus, Linear Algebra, Applied Statistics
Computer Science: Machine Organization and Assembly, Object-Oriented Design, Systems Programming, Algorithms, Operating Systems, Embedded Computing in Engineering, Webware
Robotics: Electrical and Computer Engineering, Robotic Processes, Robotics Manipulation/Controls, Controls Engineering

TECHNICAL SKILLS

Project Management: Scrum/Agile, Kanban, GrabCAD Workbench, Jira, GitLab
Software: SolidWorks, VM VirtualBox, Visual Studio, Brackets, IntelliJ, MATLAB
Languages: Java, C/C++, Linux command line, Python, C#/.NET, HTML/CSS, JavaScript, R
Certifications: FAA Part 107b Remote Drone Pilot, Autodesk Inventor Certified User, MATLAB Onramp Certification
Miscellaneous: Arduino, robotic processes, SLA printing, soldering, drafting, aerial cinematography, video editing

PROJECTS

Winged Drone Project, *Worcester Polytechnic Institute* Nov 2021 – Present
- Currently working on designing and building a drone using a Pixhawk V4 to create a drone that can fly with four propellers and deploy a set of wings for gliding in hopes of increasing battery life

Partial Prosthetic Hand – Modular Finger, *Worcester Polytechnic Institute* Jun 2021 – Oct 2021
- Led a team of individuals through scrum and Zoom meetings to design a final product
- Used Solidworks to design the swappable fingertip and fabricated all parts using an SLA 3D printer

Investigating the Activation Methods of 4D Printed Structures, *NHSEE* Mar 2019
- Conducted research and experiments relating to the formation changes of 3D printed materials when exposed to differing temperatures

Mini Arcade Machine Mar 2018
- Designed an arcade machine using an Arduino and 3D modelling software to obtain high school credit in a topic of interest. Presented the fully built machine along with progress reports at the end of the year to the committee

EXPERIENCE

Software Engineering Intern, *AeroVironment* May 2022 – Aug 2022
- Worked on additional software capabilities for a VTOL aircraft
- Edited software, integrated into vehicle, and flew to view telemetry

HighTech Bound Intern, *University of New Hampshire* Jul 2019 - Aug 2019
- Programmed new features and fixed bugs for a DSL testing software in an agile environment

Lead Server, *RiverWoods Exeter* Sept 2017 - July 2019
- Supervised and directed servers within the dining room to provide an efficient service

AWARDS

- Aspirations in Computing Affiliate Winner, NCWIT Mar 2020
- Finalist, Boston Drone Film Festival Oct 2019
- National Technical Honor Society Apr 2019
- Yale Science and Engineering Association Award Mar 2019