Brennan Miller-Klugman

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EDUCATION

Tufts University | Medford, MA PhD, Computer Science Tufts University | Medford, MA MSc, Computer Science Wentworth Institute of Technology | Boston, MA Bachelor of Science in Computer Engineering SKILLS Software: Verilog, MATLAB, SolidWorks, Fusion360, ROS, Flask Languages: Java, Python, C, C++, C#, x86 Assembly Operating Systems: Linux, Windows EXPERIENCE Woods Hole Oceanographic Institute | Woods Hole, MA AOPE Co-op September 2021 – January 2022 Developed various ROS utilities including an application to transfer files across the WHOI Micromodem-2 • Used Flask to develop web interfaces to display information from databases Created a CLI application uses Curses to provide a simpler way to run ROS command Deployed Ubuntu based CI server to build firmware on regular intervals using docker containers Wrote documentation explaining the setup of CI Used JTAG to flash updated firmware onto boards Wentworth Institute of Technology | Boston, MA Research Assistant December 2021 – April 2021 Designed and constructed a small robot to be used to learn code by elementary school students •

- Selected parts including an ultrasonic sensor, motors, and a motor driver
- Used Python and HTML to create a web interface utilizing the Flask framework
- Modeled and 3D printed a chassis for the robot using Fusion 360
- Wrote a comprehensive assembly guide and lesson plan for the robot

Priority 5 Holdings | Needham, MA

Software Developer

- Used Python and Rest API's to Create data integration for customer deployment •
- Developed a Python script to load historical data for a customer •
- Wrote a comprehensive technical user guide for customers •
- Built Python code using the PDFMiner library to parse data from PDF files
- Provided technical support to the customer support team to better address customer issues

CVS Health | Orleans, MA

Shift Supervisor

- Managed a staff of up to 3 people to complete daily functions such as assisting customers or organizing the store •
- Oversaw the unloading of the weekly delivery and interfaced with employees to effectively put away the stock
- Handled customer relations issues in accordance with company policy and promote a positive shopping experience

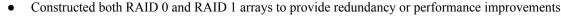
PROJECTS

Underwater Remotely Operated Vehicle (ROV) | IEEE

- Developed ROS architecture in Python to communicate with sensors, hardware, and motors •
- Programming with PyQt to create a GUI to interface with the ROV
- Interfaced with I2C Sensors, UART and others
- Installed and configured OpenWrt on a Raspberry Pi 3 to allow wireless communication with the ROV

Home Server Lab

- Deployed multiple utilities including Heimdall and Nextcloud using Docker •
- Deployed a remote development server running Ubuntu Server
- Installed an 8U blade enclosure into 22U server rack



Minecraft For Education | Intro to Engineering

- Worked with Java code to create custom interactions within the game in a team of 2 •
- Created technical documentation so that the project could be replicated by students
- Deployed a Minecraft game server using Ubuntu Server

Expected August 2028

Expected August 2024

August 2022

July 2016 - August 2019

April 2020 – August 2020

September 2019-Present

September 2018-Present

January 2019-April 2019