Nathan Robinson

17 Tiger Lily Lane
Cape Elizabeth
Maine 04107

(207) 303-9817
nrobinson2000@me.com

GitHub:
github.com/nrobinson2000

LinkedIn:
linkedin.com/in/nrobinson2000

Online Portfolio:
https://nrobinson.me

Particle Offline Utility:
https://po-util.com

Skills:
Web Development and Administration
Particle Firmware Development
Open Source Software
Unix Command Line
3D Printing

Technologies:
Java, Particle, Bash, Python
JavaScript, HTML, CSS
Markdown, Git, Atom, VIM

Platforms:
macOS, Ubuntu Linux
Raspberry Pi, Particle Photon

Experience

April 2018 – Present	**Internet of Things Prototyping Consultant,** Ripple Water Leading the Embedded Firmware development for Ripple, an IoT solution for water coolers that facilitates real-time monitoring of water levels using the Particle Platform and Losant that allows customers to get insights on their water use and helps distributors optimize water deliveries.
May 22 – June 1, 2018	**Embedded Programming Educator,** Engine Completed a two week internship with Engine, a non-profit art organization focused on STEM and Art education. I worked in the Maine Fab Lab, where I operated 3D printers and created educational materials for teaching students the essentials of embedded firmware development with the Particle Photon and various sensors and actuators.
May 19 – 20, 2018	**Hardware Hacker,** Metrohacks III – 24-Hour High School Hackathon My team won the award for best environmental hack with vivoGREEN, an IoT Smart Home demonstration that used a Particle Photon to gather environmental data and a webpage to display the luminosity, humidity, and temperature data, allowing the user to monitor the environment or control an RGB LED wired to the Photon using defined presets or RGB sliders.
June 2017 – Present	**Embedded Firmware Consultant,** Tank Clarity Working remotely with Tank Clarity, a startup using the Particle platform for monitoring heating oil delivery with intelligent Wi-Fi-enabled sensors. I collaborate with the CTO to develop and test firmware for the sensors and create command-line utilities to accelerate production.
February 2017 – May 2017	**Full Stack Web Consultant,** DPC New England Created the website for DPC New England, a coalition of doctors providing direct primary care. Developed Wordpress, Discourse, and system administration skills on an Ubuntu Linux server. Now providing administrative support and ongoing system updates.
June 2015 – Present	**Particle Community Volunteer,** Particle Providing assistance to users of Particle's Internet of Things services and embedded IoT development kits via the online forum. I directly address topics within the active community, improve code, and give feedback on Particle's tools and services. I created po-util, a tool that greatly improves the development workflow of over 200 Particle users. Participated in the Particle Raspberry Pi alpha program where I collaborated with software and hardware engineers at Particle to test their integration for the Raspberry Pi platform.

Education

2018 – 2022 **Wentworth Institute of Technology, Boston, MA** – Computer Science (BCOS)

Bachelor of Science in Computer Science, August 2022

Selected Coursework: Computer Science I & II (Java), Discrete Mathematics, Linear Algebra, Calculus I & II, English/Humanities Sequence

Member of the WIT Computer Science Society ACM Chapter

Participated in HackWITus 2018, the annual hackathon hosted at Wentworth Institute of Technology. Secured a sponsorship with Particle to donate Photon kits and IoT hardware for use in the hackathon.

2016 – 2018 **Cape Elizabeth High School**

Coding Club President, Junior Varsity Basketball, Technical Theater

In Coding Club I focused on helping students create projects with the Particle IoT platform and taught them the fundamentals of developing smart devices and web based applications.

Presented to the Cape Elizabeth Education Foundation and received a $1,200 grant to purchase Raspberry Pi and Particle Photon hardware kits for use in Coding Club.

Summer 2016 **Oxbridge Experience in Boston**

Majored in Computer Science and minored in Neuropsychology while residing at the Harvard Law School.

Created a semi-autonomous rover using a Particle Photon, and a Raspberry Pi that completed various tasks. Building the robot improved my C++ and Python programming skills.

2015 – 2016 **ACS Hillingdon International School**

Tech Club, Genius Bar, ISTA, Junior Varsity Basketball, Volleyball, Tennis

For my tenth grade personal project I created an Internet of Things demonstration that used a Photon to control servos and lights, and monitor sensors with an accompanying web application I built using JavaScript, HTML, and CSS.

Summer 2015 **Cambridge Prep Experience**

Majored in Science and the Future and minored in Speech and Debate in the summer of 2015 while residing at Peterhouse College at Cambridge University.

Summer 2014 **Oxford Prep Experience**

Majored in Computer Science and minored in Creative Writing in the summer of 2014 while residing at Oriel College at Oxford University.