Preston Carpenter

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#### **EDUCATION**

Northeastern University, Boston, MA

September 2014 – Present

Candidate for a Bachelor of Science in Computer Science

Expected graduation May 2019

College of Computer and Information Sciences

Relevant Courses: Object-Orientated Design, Computer Systems, Programming Languages,

Networks and Distributed Systems, Algorithms and Data

# COMPUTER KNOWLEDGE

Languages: Python, Rust, C, C++, Java, Javascript, HTML, CSS, C#, Bash

Software: Linux, AWS, Git, Mercurial, React, Flask, SqlAlchemy, SCons, Make, Postgres, Vi, Intellij

#### **EXPERIENCE**

Microsoft, Redmond, WA

May 2018 – July 2018

Software Engineer Intern

- Developed a document analyzer and reporting tool
- Collaborated with other teams to standardize OEM and datacenter documents for automation
- Made the configuration program for a boot loader used in datacenters more user friendly

## Intuit, San Diego, CA

July 2017 – December 2017

Software Engineer Co-op

- Backend developer on "machine learning as a service" product that powers data insights
- Eliminating manual deployment and testing through automated continuous integration
- Core developer on winning team in Codechella hackathon

## Kinto Care, Boston, MA

July 2016 – January 2017

Full Stack Engineer Co-op

- $\bullet$  Developed flagship cross-platform phone app using Javascript with React + Cordova
- Interacted with back-end API powered by Flask and Postgres (Python, REST)
- Contributed to key design decisions through service research and weekly sprint meetings (Agile)
- Assured new features met QA and user acceptance guidelines through rigorous testing

### Beechwood Software, Boston, MA

January 2017 – July 2017

Software Engineer Intern

November 2015 – July 2016

- Contributed C++ code to the open-source IoT (Internet of Things) Alljoyn framework in collaboration with the Allseen Alliance and Linux Foundation
- $\bullet$  Developed smoothing algorithms to calculate distance between bluetooth devices
- Configured a cross-compiling environment to utilize the Alljoyn stack for the Raspberry Pi
- Assembled and tested the final stack that was presented at CES in Las Vegas

## Northeastern University, Boston, MA

August 2015 - July 2016

January 2017 – May 2017

- TA for Fundamentals of Computer Science I
  - Tutoring students and leading labs teaching Racket as a first Programming Language
    Grading homework, quizzes, and exams

# **PROJECTS**

## Way-Cooler (Wayland Window Manager)

January 2016 – Present

- 2nd most popular tiling Wayland window manager with 2,000+ downloads and 1,000+ stars on Github
- Designing a window manager utilizing the Wayland protocol in Rust
- Inventing an extremely flexible and configurable layout system based off of i3 and awesome
- Programmable interface to virtually everything via a running Lua thread and D-Bus interface

#### AutoWikiaBot

June – August 2015

- Developed a Reddit bot in Python to post summaries of Wikia articles that other users linked
- Configured and managed a server running Linux/Debian hosting the bot remotely using SSH
- Adapted a popular Python Wikipedia library to work for Wikia links

INTERESTS