**EDUCATION**

B.S. Computer Science

HARVEY MUDD COLLEGE, Claremont, CA. Expected, May 2020.

Dean's List Finalist 2015

National Merit Semi-finalist

**Relevant Coursework**

Calculus • Special Relativity • Principles & Practice of Computer Science • Chemistry in the Modern World • Physics Laboratory • Seattle Academy Robotics Independent Study

**COMPUTER SKILLS**

Languages: Python, C#, Node.js, Javascript, C, Java, Assembly Language

Software: Git, SolidWorks, MySQL, OpenCV, JQuery, PIL, matplotlib, Jekyll, socket.io

**WORK EXPERIENCE**

**Software Developer Intern**, Microsoft Research 3/16-5/16

* Helped develop a high-altitude wind model using real-time data from planes
* Built C# backend to ingest data from planes, generate models, and serve these models
* Used data science to prove accuracy of the wind model, presented findings to clients with head of Microsoft Research, Eric Horowitz

**Research Intern,** University of Washington Ubiquitous Computing Lab 6/15-8/15

* Wrote C code for Nexus 5 smartphone kernel to improve performance of phone touchscreen when wet
* Results documented on project website: <https://ubicomplab.cs.washington.edu/raincheck>

**Programming Tutor** 2/15-5/15

* Taught Python and Arduino programming to a 12-year-old

**PROJECTS**

**Lead Programmer,** Seattle Academy Waterfall Sculpture Project7/15-Present

* Students post images to social network, popular posts will be projected onto waterfall located in school’s lobby
* Runs Node.js server-side with MySQL database, login process secured using OAuth 2.0

**Wrote Optical Character Recognition** **Tool** 3/16-Present

* Extracts lines and words from scanned documents
* Makes use of industry standard OpenCV image processing library

**Created Neural Network from Scratch** 8/15-3/16

* Designed to recognize handwritten characters
* Network is feed-forward with one hidden-layer, and trained with backpropagation

**Published Open-Source Temperature Sensor Library** 3/15-6/15

* Helps Raspberry Pi interface with mcp9808 digital temperature sensor over I2C industry standard protocol
* Code is open-source, available on Node Package Manager: <https://www.npmjs.com/package/mcp9808>

**VOLUNTEER EXPERIENCE**

**Web Designer**, Wallingford Senior Center 6/14-1/15

* Helped implement online donate menu, fixed styling and user interface issues

**Programming Volunteer**, Washington Trails Association (WTA) 5/15-8/15

* Created C# application to allow WTA to display open source trail data on their website