Richard **Zhao**

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Objective

To obtain a professional internship in a technical field to advance my skills through experiential learning.

Experience

Peer Tutor

Academic Development, Carnegie Mellon University
February 2014 – present

- » Practices leadership and communication skills by assisting peers with academic challenges
- » Improves ability to explain abstract problem solving strategies.

Physics Outreach Mentor

Physics Department, Carnegie Mellon University
September 2014 – February 2015

- » Strengthens communication and leadership skills by mentoring 7th grade students from Colfax Elementary and teaches fundamental scientific concepts and experimental procedure.

Projects

Touch Calculator

Fundamentals of Programming and Computer Science
May 2015

- » Machine learning driven touchpad-drawing input.
- » Designed and implemented an original feature detection algorithm based on n-dimensional vector addition.
- » ~90% recognition rate for 32 characters using K-Nearest-Neighbors with <500 total training instances.
- » Written in Python with a Tkinter GUI and packaged for standalone use in Mac OS X.
- » Video demonstration: https://youtu.be/9xGWnnozi-M

Scotty Sports

February 2015

- » iOS application for CMU students that allows users to organize pickup games in sports and activities.
- » Integrated the Facebook Login API
- » Used Parse to manage a database.
- » Worked in a 4-person team at Tartan Hacks 2015 to build the app from the ground up.

Education

Carnegie Mellon University

May 2018, Pittsburgh PA

- » Bachelor of Science in Physics, 4.0 GPA
- » Dean's list, High Honors – Fall 2015

Millburn Senior High School

June 2014, Millburn NJ

- » Diploma with High Honors, 4.37/4.46 GPA
- » National AP Scholar
- » AP Scholar with Distinction
- » National Merit Commended Scholar

Skills

Languages

- » Python

Technologies

- » Git
- » Xcode
- » LaTeX
- » Arduino
- » Adobe Creative Suite

Relevant Coursework

- » Principles of Computing
- » Concepts of Mathematics
- » Communication Design Fundamentals

Activities

Society of Asian Scientists and Engineers

January 2015 – present

- » Member – campus connections committee

Men's Ultimate Frisbee

September 2014 – March 2015

- » Freshman Captain and member

Make A Wish Foundation

September 2013 – June 2014

- » VP of Communications, Millburn HS