

RAYMOND HOGENSON

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EDUCATION

Carnegie Mellon University, Pittsburgh PA

May 2019

Mathematics & Computer Science

Dean's List—Fall 2015, Spring 2016, Fall 2016, Spring 2017

Cumulative QPA: 3.90/4.0

EXPERIENCE

Intern at NASA JPL

Summer 2018

Software engineering intern

Pasadena, CA

- Used python and numpy to write scientific code to calculate tropospheric delay

CMU Summer Undergraduate Research Fellowship

Summer 2017

Undergraduate Research Fellow

Pittsburgh, PA

- Investigated under Dr. Boris Bukh an open question in mathematical combinatorics.
- Determined the expected length of the longest common subsequence between randomly selected words which overlap.

Alaska Satellite Facility

Summer 2015, 2016

Software Engineering Intern

Fairbanks, AK

- A government-affiliated organization with the purpose of making remote sensing data available to scientists and other professionals.
- Created the hyp3 system for managing incoming satellite data with a team of 4 interns.
- Programmed the front-end for this system using Django as well as the interfacing with AWS tools such as Lambda, EC2, and s3.
- Co-authored a presentation at AGU about this product.
- Processing over 60 gigabytes of incoming data per day.

Fairbanks Youth Orchestras

2011 – Present

Webmaster

Fairbanks, AK

- Developed and maintained a system in PHP for online registration of over 100 individuals in the group.

TECHNICAL SKILLS

Computer Languages

Rust, C, C++, Python, Haskell, Java, L^AT_EX

Infrastructure

AWS tools, Django, Numpy, OpenCV

Tools

Microsoft Excel, Inkscape, Mathematica, Git

PROJECTS

CMU Quantathon

2017

- 1st place.
- Collaborated with 2 other undergraduates in proving the optimal strategy for a probability-based game.

HackCMU

2015

- eBay machine learning award.
- Created an application to recognize a chess board from an image, achieving over 90% accuracy in piece identification.
- Implemented an original algorithm utilizing OpenCV in Java for this application.