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Best with:

- C++ 11/14
- CUDA
- C
- Python
- SML
- Matplotlib
- NumPy
- SciPy
- make
- VDB
- openMP
- openCV
- linux & posix

Great with:

- Java
- Metaprogramming
- Go
- Excel
- Boost
- MPI
- RAJA
- cmake
- CUB

Good with:

- C++ 17
- Visual Basic
- Javascript
- MatLab
- HTML/CSS
- Flask
- NX

Tools I love:

- vim
- gdb
- git
- Visual Studio

SUMMARY:

I'm a Junior at CMU's School of Computer Science (SCS) with excellent project management and strong mathematical intuition. I'm seeking Summer '18 internships in software engineering, project management, quantitative research, and trading. I have strong problem solving and communication skills.

EDUCATION:

Carnegie Mellon University School of Computer Science (SCS)

B.S. Candidate, School of Computer Science (exp. May 2019, cumulative GPA 3.4)

Minors in both Business Administration and Mathematical Science

HACKATHONS:

HackIllinois: Grand Prize + Microsoft's Best Microsoft Hack + Best Use of Azure, Spring 2016

- Hack detected Parkinson's Disease using handwriting, speech, and wearable accelerometer data. Built the hand tremor detection tool and entire UX/UI. Designed the stutter detection method.
- HackIllinois was the largest student hackathon of Spring 2016.

PennApps: Best Health Hack, Spring 2016

- Hack targeted diabetic treatment. Created the backend tools, which used deep learning for predicting insulin dosage, and gamified patient compliance through a collective betting system.

BostonHacks: Grand Prize, Fall 2015

- Hack provided an automated medical line callable from standard phones. Built the web scrapers and text miners that diagnose users' complaints and identify relevant medical information.

WORK AND OTHER EXPERIENCE:

Propulsion Intern, Space Exploration Technologies (SpaceX): Summer 2017

- Worked on a Propulsion R&D HPC project to simulate the **Navier-Stokes equations** on the GPU
- Created/moderated the intern Slack (200+ active members) & organized unofficial intern outings
- Software development internship; contact me for more information

Computation Intern, Lawrence Livermore National Lab: Summer 2016

- Through a competitive selection process, research was accepted into SC16 (via ACM SPS). At the conference, research was **shortlisted for best ACM SRC for Posters at SC16**.
- HPC research which included harnessing intra-node parallelism and achieving load balancing while also maintaining performance portability -- 12X intra-node CPU speedup.
- Also worked on a multi-physics toolkit, implementing robust geometric queries, acceleration data structures for meshes and other computational geometry algorithms used in simulations.

Research, Carnegie Mellon University

- **Computational Biology Department Research, Fall 2016**
 - ◆ Implemented work using Python 2.7; main packages used were NumPy and SciPy
 - ◆ Worked on bioinformatics research to improve feature selection for cancer genomics model.
- **Language Technologies Institute, Fall 2015**
 - ◆ Coded web-crawlers and data-mining tools to collect/update/process app-data corpus.
 - ◆ Helped with development of a model for detecting which apps are often used in sequence.

AWARDS, ACHIEVEMENTS, ORGANIZATIONS & FUN FACTS:

- Microsoft Imagine Cup National Semi-finalist
- Eagle Scout, EMT and former Order of the Arrow Chapter Chief
- MellonHeads, TartanHacks Mentor and TartanHacks 2016 organizer
- Plaid Parliament of Pwning (PPP)
- CMU's Explorers Club

OTHER FUN PROJECTS:

- Co-built tool to detect cataracts in facial images. Worked on facial landmark detection and used Hough transforms to identify pupils.
- Created a tool that virtualizes physical SCRUM boards by taking a video of physical sticky notes. Worked on the computer vision.
- At the Capital One Software Engineering Summit, developed a hack to detect early onset dementia using fuzzy c-means clustering.