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Experienced With:

- **Python**
- **C++**
- **C**
- **RAJA**
- **SML**
- **NumPy**
- **MatLab**
- **Azure**
- **Matplotlib**
- **OpenMP**

Proficient with:

- **Java**
- **RAJA**
- **AMD64**
- **Excel**
- **CUDA**
- **R**
- **Unix**
- **Twilio**
- **Project Oxford**

Capable With:

- **HTML**
- **Flask**
- **CSS**
- **Excel**

SUMMARY:

I am an undergraduate in Carnegie Mellon's School of Computer Science (SCS). I am a sociable computer scientist with a strong mathematical intuition and excellent project management skills. My research interests include using ML Algorithms and HPC for healthcare and social impact.

EDUCATION:

Carnegie Mellon University School of Computer Science (SCS)
B.S. Candidate, School of Computer Science (Exp. May 2019, GPA 3.3 on 4)

HACKATHONS:

HackIllinois: Both Grand Prize & Microsoft's Best Microsoft Hack & Best Use of Azure
University of Illinois in Urbana–Champaign: Freshman Spring (2016)

- ➔ At HackIllinois (largest Spring '16 student hackathon), we created a Parkinson's Disease detection tool. Users upload handwriting, vocal stutter and accelerometer data in order to predict PD. I worked on the stutter detection method and the entire UX/UI.

PennApps: Best Health Hack
University of Pennsylvania: Freshman Spring (2016)

- ➔ Created an app using DNNs to predict correct insulin dosages for diabetic patients and gamified patient compliance. I created the backend tools that used deep learning to predict insulin dosage and integrated with a finance API to gamify data collection.

BostonHacks: Grand Prize
Boston University: Freshman Fall (2015)

- ➔ Created an automated nurse line callable from standard phones. Users described symptoms and were diagnosed/educated on the disease. I created the web scrapers and text miners that diagnosed the user and identified relevant medical information.

WORK AND OTHER EXPERIENCE:

Computational Scholar, Lawrence Livermore National Lab
Livermore, CA — Summer 2016

Accomplishments:

- Having passed a highly competitive selection process, my research was accepted into SC16, the largest HPC conference, where I will be presenting my results (via ACM SPS)
- Conducted HPC research on RAJA project, a hardware encapsulation layer for performance portable HPC codes. Work included efficiently achieving load balancing
- Research included harnessing intra-node parallelism while maintaining performance portability -- 12X intra-node CPU speedup. GPU speedup results await export control
- Also developed multi-physics toolkit for the Weapons and Complex Integration Directorate

Research Assistant, Carnegie Mellon Language Technologies Institute
Pittsburgh, PA — Freshman Fall

Accomplishments:

- Coded web-crawlers and data-mining tools to collect/update/process app-data corpus
- Helped with creation of model for clustering apps used in sequence

SKILLS:

- Excellent interpersonal, communication and leadership skills
- Able to work independently and quickly learn new skills and technologies
- Strong mathematical and statistical intuition

AWARDS & ACHIEVEMENTS:

- Eagle Scout and former Order of the Arrow Chapter Chief
- Microsoft Imagine Cup National Semi-finalist
- EMT and former American Red Cross Certified CPR Instructor
- Former FIRST Robotics Team Captain

OTHER FUN PROJECTS:

- At the Capital One Software Engineering Summit hackathon, we developed a hack to detect early onset dementia. My contributions included detecting anomalous spending patterns (using fuzzy c means clustering) and other backend tasks.
- My friends and I are creating a tool that detects cataracts from images/videos of faces. My contributions so far include using facial landmark detection to locate/track the eye, and using the Hough transform to extract the pupil.