Evan DeSantola

Carnegie Mellon University,
SMC 1249
Pittsburgh, PA, 15213

Tel: 215 279 0317

edesanto@andrew.cmu.edu
evandesantola.com
desantola.com
github.com/evandesantola
devpost.com/edesanto

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 (Project Management and Presentation Skills):

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 (Quantitative Skills):

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.