Evan DeSantola

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Skills:

- Data Analysis
- Software Engineering
- Machine Learning
- Numerical Methods
- Distributed Computing

Background:

- Computer Science
- Probability
- Mathematics
- Computational Physics

Technologies:

Python:
- Tensorflow (DESCO)
- Numpy (DESCO)
- OR-tools (DESCO)

C++ 14/17:
- CUDA (SpaceX)
- CUB (SpaceX)
- BLAS/LAPACK (SpaceX & LLNL)
- MLPACK

Other Languages:
- golang (DESCO)
- Java
- MATLAB
- SML
- C

Favorite Books:

- Bayesian Data Analysis
- Other Minds
- Guns, Germs, and Steel
- Principles

I'm a senior studying computer science seeking full time roles.

EDUCATION:

Carnegie Mellon University, School of Computer Science (SCS)
B.S. Candidate, School of Computer Science (May '19, GPA 3.3 on a 4.0 scale)
Minors in Machine Learning and Business Administration

WORK EXPERIENCE:

Front Office Intern, D.E. Shaw Group (DESCO), Summer '18
- ➔ Prototyped and applied methods using regression modeling, deep reinforcement learning, MILP and constraint programming. Contact for more information.

Teaching Assistant, Cognitive Robotics (15-694), School of Computer Science, Spring '18
- ➔ Head CS TA. Led recitations, designed assignments, held office hours, created rubrics, and graded coursework for a **graduate level A.I. Class**, which surveys computer vision and robot perception.

Propulsion Intern, Space Exploration Technologies (SpaceX) Propulsion R&D, Summer '17
- ➔ Worked for a propulsion research team that builds a simulation of the Navier-Stokes equation on the GPU.

Computation Intern, Lawrence Livermore National Lab (LLNL), Summer '16
- ➔ Research was competitively accepted into SC16 (via ACM SPS). Research was then shortlisted for best ACM SRC for Posters at SC16.
- ➔ Implemented computational physics and numerical linear algebra methods for multi-physics toolkit.

RESEARCH:

Senior Honors Thesis, CMU School of Computer Science Theory Group, Spring '18-'19
- ➔ Designing and evaluating partisan gerrymandering protocols with provably non-partisan outcome.
- ➔ Generated human playable maps that approximate to real-world electoral data using MILP (completed).
- ➔ Trained RL models with user behavior to demonstrate computational tractability of near-optimal play.

Bioinformatics Research, CMU Computational Biology Department, Fall '16
- ➔ Worked on bioinformatics research to improve feature selection for cancer genomics model.

Research Assistant, CMU Language Technologies Institute, Fall '15
- ➔ Helped with development of a model for detecting which apps are often used in sequence.

HACKATHONS & PROJECTS:

HackIllinois: Grand Prize + Microsoft's Best Microsoft Hack + Best Use of Azure, Spring '16
- ➔ Data science hack to detect Parkinson's Disease using handwriting, speech, and wearable accelerometer data. Largest student hackathon of Spring '16.
- ➔ Built the hand tremor detection tool and entire UX/UI. Designed the stutter detection method.

PennApps: Best Health Hack, Spring '16
- ➔ 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 '15
- ➔ 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.

AWARDS, ACHIEVEMENTS & ORGANIZATIONS:

- Microsoft Imagine Cup National Semifinalist (competition among 358,000 student developers)
- Plaid Parliament of Pwning (PPP) (security research group at CMU that competes in CTFs)
- Eagle Scout, EMT and former Order of the Arrow Chapter Chief (BSA's National Honor Society)
- MellonHeads (student hackathon interest group), TartanHacks Mentor and TartanHacks '16 organizer
- CMU Explorers Club (student outdoor activity interest group)