ANANYA KUMAR

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EDUCATION

Carnegie Mellon University 2013-2017
B.S. in Computer Science, Minor in Math, 4.00/4.00 GPA, PBK/ACS Scholar

- Machine Learning (MS), Convex Optimization (PhD), Statistics (PhD), Mobile Robots (PhD), CS Theory (PhD), Deep Reinforcement Learning (PhD), Operating Systems, Honors Analysis

RESEARCH

Algorithms Advised by Avrim Blum, 2016-now

- Devised and proved streaming algorithms for approximate convex hulls

Parallel Data Structures Advised by Guy Blelloch and Robert Harper, 2015-2016

- Developed algorithms and cost semantics for parallel functional (immutable) arrays

Robotics Advised by William "Red" Whittaker, 2014

- Prototyped methods to improve position estimation of pair of planetary rovers

PUBLICATIONS

Parallel Functional Arrays. Ananya Kumar, Guy E. Blelloch and Robert Harper. Principles of Programming Languages (POPL) 2017. 23% acceptance rate.

SOFTWARE ENGINEERING

Uber ATC, Self Driving Car Team, Summer 2016

- Worked in the motion planning team, details of projects under NDA

Google Cloud, Kubernetes Team, Summer 2015

- Implemented a controller that keeps daemons persistently running on specified cluster machines
- Designed and implemented quality of service classes to utilize unused resources in a cluster

Leanplum, A/B Testing Startup, Summer 2014

- Improved accuracy of statistical algorithms
- Designed and implemented an estimator to predict how long A/B tests should be run for

TEACHING

Algorithms Designed and conducted a 15 week algorithms class for 20 high school students
Theory Taught recitations, wrote problems and solutions, and graded for Intro CS Theory class

AWARDS

Research Alumni Award in CS and 2nd place in Math Competition for senior thesis research
Math Putnam Competition 2016 - Rank 109.5 (Top 200 in North America)
Programming ACM Regional Contest 2013 - 7th/126
Hacking Top 10 finalists at HackMIT 2015 (out of 195 projects)

SKILLS

Languages Python, C/C++, Matlab, Java, SML, Go, Javascript, SQL, x86 assembly
Technologies Google Cloud Platform, Unix, MPI, GIT, LaTeX