MAYANK AGRAWAL

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EDUCATION

University of Oxford October 2016 - June 2017
Visiting Student, St. Anne's College

Swarthmore College August 2014 - May 2018
Pursuing B.A. in Computer Science and Philosophy GPA: 3.78 / 4.00
Thesis: *PAC Learning Ethics*
Advisor: Alan R. Baker

PROFESSIONAL EXPERIENCE

Kallyope June 2017 - August 2017
Incoming Data Science Intern *New York, NY*

· Biotech startup creating a platform to understand the gut-brain axis

Mercury Fund August 2016 - September 2016
Analyst Intern *Houston, TX*

· Early stage venture capital fund with over $250 million focusing on companies in the U.S. Midcontinent
· Researched, analyzed, and evaluated startups integrating life sciences with artificial intelligence
· Presented to fund's partners and advisors about fundamentals and landscape of machine learning

Robotics Institute, Carnegie Mellon University May 2016 - August 2016
Developer *Pittsburgh, PA*

· Full-time developer for RoboTutor, a project to create educational AI for students ages 7 - 10
· Developed arithmetic tutors and designed motivational agent to instill growth mindset in learner
· Entered in competition for attempt to win $10 million and will be released as open-source afterwards

RESEARCH

Action Selection Modelling Group, University of Oxford February 2017 - Present
Research Assistant *Oxford, UK*

· Working under Professor Rafal Bogacz studying Parkinson's Disease and the onset of $\beta-$oscillations
· Creating mathematical models in order to predict oscillations, which will then be used to help therapies

Aguirre Lab, University of Pennsylvania June 2015 - August 2015
Summer Research Assistant *Philadelphia, PA*

· Worked full-time under Professors Geoffrey K. Aguirre and David Brainard to study melanopsin
· Measured pupil distortion in response to flickering light to characterize nonlinear filters in eye
· Constructed distributed computing setup to automatically communicate and run experiments

TECHNICAL PROJECTS

Spykes

· Open-source Python library created and maintained by Northwestern University's Kording Lab
· Developing new visualization and analytic methods to facilitate neural spike analysis
· Incorporated robust testing suite and continuous integration to maintain health as others contribute

GreenMon

- Created peer-to-peer system that dynamically turns on and off nodes in response to cluster usage
- Developed lightweight, scalable algorithm to bypass communication and avoid usage of master node
- Estimated power usage reduction of roughly 80% in schoolwide computing cluster

TEACHING

Fall 2015, Spring 2016	Student Academic Mentor, *Swarthmore College*
Spring 2015	CS21 Teaching Assistant, *Swarthmore College*
Summer 2014	Math Teaching Fellow, *Breakthrough Houston*
Summer 2013	Math Teaching Fellow, *Breakthrough Houston*
Summer 2012	Literature Teaching Assistant, *Breakthrough Houston*

TECHNICAL SKILLS

Computer Languages	Python, C++/C, Java, MATLAB, R
Tools	LaTeX, Unix, git, OpenCV, MPI, Android Studio, NumPy, CUDA

EXTRACURRICULARS

NCAA DIII Varsity Cross Country, Track & Field

HONORS & AWARDS

2017	Computational Neuroscience Travel Grant, *Swarthmore College Dept. of Cognitive Science*
2016	John W. Nason Community Service Fellowship, *Swarthmore College*
2014	Philip Evans Scholar, *Swarthmore College*

Last Updated: May 8, 2017