

Aparajithan Venkateswaran

apve4733@colorado.edu

www.aparavenkat.com

github.com/AparaV

(720) 520-2811

Education

University of Colorado Boulder

B.S. (Honors) Computer Science

B.S. (Honors) Applied Mathematics

Senior Thesis (advised by Prof. Daniel Larremore):

"Models for online and group ranking of nodes in complex networks"

May 2020

GPA: 4.000 (after Fall 2019)

Experience

Research Assistant, University of Colorado Boulder

Jan 2018 – Present

- NSF funded REU working with Prof. Daniel Larremore on identifying structure in complex networks.
- Developing mathematical tools to study ranking of nodes in complex networks.
- Designed machine learning and mathematical models to segment and parse academic resumes.

Teaching Assistant, University of Colorado Boulder

Jan 2018 – Present

- Teaching assistant for Chaotic Dynamics (CSCI 4446) in Spring 2020.
- Course assistant for Discrete Structures (CSCI 2824) in Spring 2018.
- Holding office hours; grading assignments; and designing new questions for assignments and exams.

Software Engineering Intern, Microsoft

May 2019 – Aug 2019

- Intern in the Edge Experimentation Team.
- Designed and implemented an internal tool from scratch to automate data collection from experiments.
- Designed and implemented automatic reporting and strategies for interoperability between Chrome and Edge.

Research Assistant, University of Colorado Boulder

Sep 2017 – Dec 2017

- Worked under Dr. Hanspeter Schaub on optical navigation and feature tracking in astronomical objects.
- Developed a deep neural network to detect craters and designed an algorithm to track craters across time.

Awards

INFORMS Award, Outstanding Winner – Mathematical Contest in Modeling (COMAP)

Apr 2019

Winner of INFORMS Award, given to 6 of 36 winning teams. One of 36 winning teams out of 25,000 international teams. Modeled epicenters of the opioid crisis in five states in USA and suggested strategies to combat the problem.

Meritorious Winner (top 10%) – Mathematical Contest in Modeling (COMAP)

Apr 2018

Modeled the cost of an individual's privacy, in a free market, by considering the risks and benefits associated with sharing private information along with highly correlated nature of human data.

Publications

1. **A. Venkateswaran**, B. Palmer, J. Kailey-Steiner, "The Value of Identity: Measuring the Cost of Privacy", *Colorado Journal of Applied Mathematics* pp. 1-22, (2018)

Manuscripts In Preparation

A. Venkateswaran, D. B. Larremore, "Resolving identifiability and group preferences while ranking nodes in complex networks"

Skills

Languages	Proficient in C/C++, Python; Experienced in MATLAB/GNU Octave, JavaScript
Tools and Frameworks	TensorFlow, NumPy, scikit-learn, SciPy, matplotlib
Misc.	Mathematical modeling, Probabilistic generative models, Parameter optimization

Volunteering

GitHub Campus Expert

Volunteering with GitHub to develop tech community around University of Colorado, Boulder

Oct 2017 – Present

Director of Logistics, HackCU

Head of logistics at student group that organizes hackathons, workshops and career fairs

Sep 2016 - Present

Department Action Team, University of Colorado Boulder

Addressing issues in the undergrad computer science curriculum with faculty and students

Sep 2019 – Dec 2019