COLE KOESTER

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EDUCATION

Tufts University Medford, MA · BS-Mathematics BS-Computer Science (Class of 2019)

Computer Science Machine Structure and Assembly Programming · Computational Geometry · Machine Learning · Programming Languages · Internet-Scale Distributed Systems · Graph Theory

Mathematics Point Set Topology · Real Analysis · Abstract Algebra · Differential Geometry · Linear Algebra

Honors and Awards Questbridge Scholar

EXPERIENCE

Tufts University Medford, MA (Fall 2017, Spring 2018, Fall 2018, Spring 2019)
Teaching Assistant

- Hosted weekly lab to facilitate student understanding of course material.
- Developed and graded weekly homework assignments.
- Held office hours 8+ hours a week.
- Attended weekly staff meetings.

Kaplan Lab (Tufts University) Medford, MA (Spring 2018, Summer 2018)
Biomedical Engineering Research Assistant

- Managed and organized a team of undergraduates in project execution and training.
- Independently designed and analyzed my own experiments and protocols.
- Performed novel research in an interdisciplinary field.

PROJECTS

Subexponential Distributions and The Principle of Single Big Jump (Fall 2018, Spring 2019)

Applied Mathematics Research; Professor Christoph Borgers; Tufts University

- Worked (and still working) closely with Professor Christoph Borgers to help facilitate his research on anomalous diffusion.
- Worked specifically on understanding the principle of single big jump and classifying exactly those probability distributions that follow the principle.

Political Data Mining and Analysis (Summer 2018, Fall 2018)
Political Science Research; Tufts University

- Developed a database of more than 1 million tweets.
- Scraped conversation threads to analyze the behavior of actors with respect to political orientation, topic, and root tweeter.
- Overcame many challenges in data collection.

SKILLS

- **Programming Languages**
  - **Proficient** C · C++ · Python · JavaScript
  - **Familiar** Java · HTML · CSS · SQL
- **Software** Unity · Linux/Unix (Arch-Linux, Red Hat, Ubuntu) · Google Cloud Platform
- **Personality** Enthusiastic · Ambitious · Learning Addict · Search Engine Wizard

ACTIVITIES

- Putnam Team · Math Society · Volunteer and Mentor at Polyhack 2018 · Students for the Exploration and Development of Space · Summer 2018 Algebraic Geometry Directed Study · CSX Board Member