PETER E. TILTON

EDUCATION

New Brunswick, NJ

Rutgers University Honors College

Sep 2018 – Present

- Rutgers Scholarship and Rutgers Trustee Scholarship, all expenses covered for four years.
- Cumulative GPA 3.97. Dean's list fall 2018 to present. Featured All-Big Ten Student Athlete 2020.
- Major in Computer Science and Cognitive Science. Expected graduation: May 2022.
- Undergraduate Coursework: Data Structures, Algorithms, Computer Architecture, Principles of Information and Data Management, Systems Programming, Formal Language and Automata Theory, Mathematical Theory of Probability, Calculus III, Intro to Linear Algebra.

LAB EXPERIENCE

CLEF Lab

Rutgers Cognitive Science Department

May 2019 – Present

- Optimized existing MATLAB neural data analysis script to run over 50% faster, from an average of 5 hours per batch to an average of 2 hours 20 minutes.
- Developed novel MATLAB scripts to analyze neural data with different metrics, allowing new conclusions from a multi-year backlog of neural data. Presented results in Aresty research symposium.
- Performed neuropharmacological assays and drug administration including bilateral injection into torso of conscious animals.

Barr Lab

Rutgers Human Genetics Institute

Jun 2017 - Aug 2018

- Developed Python script to interface with microscopy software and automate analysis of *C. elegans* images
 for submicron-sized extracellular vesicles tagged with fluorescent markers, allowing for vastly improved
 efficiency in data collection.
- Experience following and modifying detailed molecular biology protocols.

ADDITIONAL EXPERIENCE

Scholar-Athlete

Rutgers Track and Field

Aug 2019 – Present

- Division 1 athlete for Cross Country squad, specializing in 8k.
- Division 1 athlete for Track and Field distance squad, specializing in 3k, 5k, and 10k.

Mentor

Rutgers Cognitive Science Club

Sep 2018 - Present

• Worked with two undergraduates, providing guidance on academic efforts and identifying opportunities for a starting point in undergraduate research.

Miscellaneous

- HackRU: Participated with a team Fall 2018, Spring 2019, and Fall 2019.
- QBHacks: Won third place with a team Fall 2019 for web application made with JavaScript and Heroku.
- New Brunswick Citizenship Class: Spanish/English civics tutor, Nov 2016 to Feb 2018.

SKILLS

- Proficient in C, Python, MATLAB, Java. Exposure to SQL, HTML, CSS. Comfortable with AWS, Git and Linux.
- Application of code to life sciences including neuroscience, cell biology, genetics and molecular biology.
- Communication with non-programmer team members to execute programming solutions to project goals.
- Experience with microscopy, imaging, microbiology, sterile technique and behavior (rodent and C. elegans).
- Working proficiency in spoken Spanish.