SAMUEL MEYER FRIEDMAN

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EDUCATION

COLUMBIA UNIVERSITY, Fu Foundation School of Engineering and Applied Science   **New York, NY**
Master of Science in Computer Science   exp. **May 2024**

RUTGERS UNIVERSITY, School of Arts and Sciences Honors Program   **New Brunswick, NJ**
Bachelor of Arts in Genetics, Certificate in Computational Genetics, *Summa Cum Laude*   **May 2021**
- Awards: Henry Rutgers Scholar Award, Department of Genetics Award for Excellence in a Research Presentation
- Societies: Phi Beta Kappa, Paul Robeson Scholar, Rutgers Honors Program Student Advisory Board
- Courses: Java, Data Structures, Bioinformatics (Python), Comp. Genetics (R)

PROFESSIONAL EXPERIENCE

HUMAN GENETICS INSTITUTE OF NEW JERSEY   **Piscataway, NJ**
Curation Assistant, National Institute of Mental Health Repository & Genomics Resource (NRGR)   **Jun 2021-Jun 2022**
- Use Python (Pandas) to curate, harmonize, and validate terabytes of data in a multimillion-dollar genetics repository.
- Build pipelines to scrape XML data from sister repositories and construct ID mapping files using Python.
- Develop Python scripts to corroborate that genetic profiles of 50K+ biosamples match IDs from clinical interviews.
- Assess sample risk burden for manifestation of psychosis by computing polygenic risk scores using R and Python.
- Digitize and index dozens of documents containing confidential information using optical character recognition.

Research Assistant to Linda Brzustowicz, M.D., Distinguished Professor/NRGR Director   **Sep 2018-May 2021**
- Conducted Genome-Wide Association Study using PLINK, Python, R, Unix commands, and Excel.
- Independent Honors Thesis: identified gene associated with increased risk for manifestation of Bipolar Disorder.
- Developed Python scripts that added additional checks to the quality control process for new NRGR data submissions.

Aresty Summer Science Fellow to Amrik Sahota, Ph.D., Research Professor   **Jun 2018-Aug 2018**
- Began the pre-clinical trial for a novel therapeutic oral treatment for Cystinuria, a debilitating genetic disorder.
- Assessed drug for cardiac, renal, and hepatic toxicity on mice as a model for its metabolic activity in humans using the following methods: PCR, gel-electrophoresis, enzyme-linked immunosorbent assays, spectrophotometry, and Excel.

TENAFLY PSYCHIATRIC ASSOCIATES   **Tenafly, NJ**
Administrative Associate (Seasonal – Summers and Winter Breaks)   **Jun 2017-Jun 2021**
- Used Python to construct tool that gives insights into historical billing data upon entry of parameters, e.g., billing codes.
- Decreased office spending by 8% ($43K p.a.) and increased productivity through rote task automation using Python.
- Served as a liaison, ran payrolls, managed ledgers and QuickBooks, launched HIPAA-compliant server.

EXTRACURRICULAR ACTIVITIES

YACHAD, THE NATIONAL JEWISH COUNCIL FOR DISABILITIES   **Brooklyn, NY**
Coordinator   **Sep 2021-Present**
- Develop and facilitate activities for 150 members and advisors, foster community building, and organize logistics.

THE EXAMINER   **New Brunswick, NJ**
Editor-in-Chief and President   **Sep 2019-May 2021**
- Managed and presided over staff and journalists for Rutgers' 60-member science periodical.
- Tripled the club's funding as treasurer (2018) by advocating for and clarifying the club's missions and new initiatives.

FIRST-YEAR INTEREST GROUP SEMINARS   **New Brunswick, NJ**
Peer Instructor   **Apr 2019-Dec 2019**
- Developed and taught an original curriculum for "Exploring Health and Medicine," a 10-week university accredited course.
- Introduced first-year students to the health professions while helping them acclimate to college life.

SKILLS

Software: Python, R, Java, Unix scripting, Git, SQL, Excel, HTML, CSS
Languages: Fluent in Hebrew (speak, read, write)