## SAMUEL MEYER FRIEDMAN

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### **EDUCATION**

Rutgers University, School of Arts and Sciences Honors Program

New Brunswick, NJ

**BA in Genetics**, Certificate in Computational Genetics, *Summa Cum Laude* 

Courses: Java, Data Structures, Bioinformatics (Python), Comp. Genetics (R)

May 2021

## PROFESSIONAL EXPERIENCE

## **HUMAN GENETICS INSTITUTE OF NEW JERSEY**

Piscataway, NJ

Curation Assistant, National Institute of Mental Health Repository & Genomics Resource (NRGR)

Jun 2021-Present

- 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

- Independent Honors thesis project: 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 attend to any issues.

## ARESTY RESEARCH CENTER

New Brunswick, NJ

**Senior Peer Instructor** 

Sep 2020-Aug 2021

- Developed curriculum, hosted talks and events, and mentored 40 Peer Instructors through the facilitation of seminars.
- Moderated the 17th Annual Summer Science Symposium, in which over 200 individuals were in attendance.

### THE EXAMINER

New Brunswick, NJ

Sep 2019-May 2021

# **Editor-in-Chief and President**

- 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

### Peer Instructor

New Brunswick, NJ Apr 2019-Dec 2019

• Developed and taught an original curriculum for a 10-week university accredited course, "Exploring Health and Medicine". Introduced first-year students to the health professions while helping them acclimate to college life.

## **SKILLS**

Software: Python, R, Java, HTML, CSS, Unix scripting, Git, Excel

Languages: Fluent in Hebrew (speak, read, write)

**Societies**: Phi Beta Kappa, Paul Robeson Scholar, Rutgers Honors Program Student Advisory Board **Awards**: Henry Rutgers Scholar Award, Dept. of Genetics Award for Excellence in a Research Presentation