

# INBAR OFER

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## EXPERIENCE

### Biomedical Data Science Co-op

Jun. 2023 - Present

*Cerevel Therapeutics*

- Leveraged PySpark and Pandas to efficiently process large datasets and uncover relationships between genes, drugs, and diseases through network graph analysis and visualization
- Initiated projects using Jupyter Notebooks with Git version control; evolved these into user-friendly Streamlit applications, thereby improving usability for internal teams
- Integrated disparate data types such as molecular descriptors (SMILES) and medical codes (ICD, HPO, SNOMED CT) via various sources, including GraphQL and REST APIs, to identify optimal disease indications for drugs in the pipeline
- Architected ETL pipelines for data extraction, transformation, and loading into a Neo4j database using best practices like test-driven development, detailed logging, and data validation; focus on data quality and system reliability ensured seamless usage for downstream applications

### Teaching Assistant/Fellow (TA)

Sep. 2020 - Jul. 2023

*Northeastern University*

- Fundamentals of Computer Science II and Object-Oriented Design
  - Coached 100+ students on class material and approaches for solving homework problems during one-on-one office hours
  - Provided constructive feedback on Java homework assignments to track students' progress
- Organic Chemistry I and Algorithms & Data
  - Devised original weekly recitation lesson plans based on important concepts from lecture
  - Reviewed key ideas and guided 200+ students through practice problems in Zoom and in-person recitations

### Volunteer Research Assistant

Oct. 2019 - May 2023

*Chai Lab*

- Worked on developing and optimizing an enzymatic detection method for GHB, a recreational and date rape drug, using two enzymes obtained by PCR and expressed in *E. coli* under the supervision of Dr. Yunrong Chai
- Proposed and initiated development of a Python platform to identify psychoactive drug-metabolizing enzymes
  - Extracted and processed enzyme data from the Protein Data Bank (PDB) API
  - Began implementing binding affinity predictions using DeepDTAF

### Data Engineering Co-op

Jun. 2021 - Dec. 2021

*FogPharma*

- Developed interactive R Shiny applications to streamline analysis workflows for scientists across research domains
- Improved user onboarding experience of internal enterprise search platform by creating guided tours and tooltips using Shepherd.js
- Enabled persistence and synchronization of user settings across devices by implementing Vuex state management with Elasticsearch on the backend
- Designed and implemented scalable and secure cloud-based solutions using AWS services such as EC2 and S3; integrated Jenkins for automated CI/CD to improve efficiency and reliability

## EDUCATION

### MS, Computer Science (Admitted | Part-Time)

Starting Jan. 2024

*Georgia Institute of Technology, College of Computing*

### BS, Computer Science and Behavioral Neuroscience (Minor: Ethics)

Aug. 2019 - Dec. 2023

*Northeastern University, Khoury College of Computer Sciences, Honors Program*

**GPA: 3.95/4.0**

*Special Achievements:* Honors Early Research Award (Molecular Biology), President's Award, Nu Rho Psi Honors Society,

PEAK Base Camp Award, Dean's List

*Course Highlights:* Algorithms and Data, Object-Oriented Design, Database Design, Artificial Intelligence, Software Engineering, Genetics & Molecular Biology, Organic Chemistry I & II, Biochemistry, Computer Systems

## TECHNICAL PROFICIENCIES

**Languages, OS, Frameworks:** Python, Java, Bash, Unix, Racket, R, SQL, Cypher, TypeScript, C, Assembly, NodeJS, Docker, Tableau

**Softwares & Platforms:** Git, Neo4j, Adobe Creative Suite (XD, Photoshop, Illustrator), VS Code, Google Colab, Jenkins, Excel