

# INBAR OFER

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## EXPERIENCE

### Biomedical Data Science Co-op

Jun. 2023 - Present

*Cerevel Therapeutics*

- Integrated data from multiple databases and APIs, like OpenTargets GraphQL and UMLS REST APIs, to identify optimal disease targets for drug development, bridging current and future research insights
- Leveraged PySpark and Pandas dataframes for data manipulation and used network graph models to visualize complex relationships between gene targets and diseases, thoroughly conducting unit and functional testing
- Initiated projects with Jupyter notebook prototypes utilizing git version control, subsequently developing intuitive and user-friendly Streamlit applications that enable disease- or gene-specific queries
- Engineered a robust Neo4j database aggregating data on genes, diseases, and companies, focusing on best practices in data cleaning, batch import optimization, and detailed activity logging

### 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 best practices 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 guide 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 a 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
- Established a computational platform project in Python to identify bacterial enzymes that break down psychoactive drugs
  - Extract and process data from the Protein Data Bank (PDB) API
  - Predict binding affinity between the drug and bacterial enzymes using DeepDTAF

### Data Engineering Co-op

Jun. 2021 - Dec. 2021

*FogPharma*

- Developed R Shiny applications containerized with Docker for enhanced data visualization in biological and chemical research, streamlining scientists' workflows
- Crafted a guided tour and tooltips plugin for internal enterprise search platform using Shepherd.js, simplifying onboarding process
- Utilized Vuex and Elasticsearch to synchronize user settings across different devices and browsers
- 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)

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, Tableau, Racket, R, SQL, Cypher, C, Assembly, TypeScript, NodeJS, Docker

**Softwares & Platforms:** Git, LaTeX, Neo4j, Adobe Creative Suite (XD, Photoshop, Illustrator), Android Studio, Google Colab, Jenkins