INBAR OFER

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EDUCATION

Candidate for 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: Summa Cum Laude, 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

EXPERIENCE

Biomedical Data Science Co-op Jun. 2023 - Present
Cerevel Therapeutics

- Integrated data from multiple databases and APIs, like OpenTargets, 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
- Initiated projects with Python notebook prototypes, 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 - Present
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

- Built applications using R Shiny to display and analyze quantitative biological and chemical data, improving scientist workflows
- Designed and implemented guided tour and tooltips plugin for internal enterprise search in Javascript using Shepherd.js, streamlining onboarding for the new platform
- Enabled maintenance of internal app preferences across devices and browsers using Vuex and ElasticSearch
- Designed and implemented scalable and secure cloud-based solutions using AWS services such as EC2 and S3, enabling efficient and reliable processing and storage of data

TECHNICAL PROFICIENCIES

Programming Languages & OS: Python, Java, Bash, Unix, HTML, Racket, R, Kotlin, SQL, Cypher C, Assembly, JavaScript
Softwares and Platforms: Git, LaTeX, Neo4j, Adobe Creative Suite (XD, Photoshop, Illustrator), Android Studio, Google Colab

PROJECTS

For a list of my projects, please see my portfolio.