INBAR OFER

61 Montebello Rd, Apt 1, Boston, MA 02130 | (203) 273-7368 | ofer.i@northeastern.edu | linkedin.com/in/inbarofer

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: 3.94/4.0**
Special Achievements: Honors Early Research Award (Molecular Biology) 2019, Dean's List, President's Award, Nu Rho Psi Honors Society, PEAK Base Camp Award 2023
Course Highlights: Algorithms and Data, Object-Oriented Design, Database Design, Computer Systems

PROJECTS

Animation Generator *(Code repository available upon request.)*

- Developed a Java program using the Model-View-Controller (MVC) design pattern to create, visualize, and export animations
- Implemented a clean and user-friendly GUI that enables users to control the animation and export it to various file formats
- Ensured the proper functionality of the program through extensive and robust JUnit tests, covering various use cases and edge cases

Office Hours Notification System *(View Apps script here.)*

- Enhanced ease of use of TA request system which relied on manual viewing of spreadsheet to process requests
- Wrote a JavaScript script that automatically tracks activity on the course's Google spreadsheet, detecting student help requests and sending text notifications to TAs during their shift

Data Science in Health Care *(View Jupyter notebook here.)*

- Analyzed the relationship between physicians per capita and patient outcomes
- Utilized Python to clean, standardize, and organize data from multiple sources, ensuring high quality and consistency across datasets
- Performed statistical analyses and generated informative data visualizations using Matplotlib, NumPy, and scikit-learn

Vaccine Distribution System *(View Github repository and project report here.)*

- Developed a tool that models the flow of COVID-19 vaccines through various distribution channels and allows for several user types, including citizen and clinic administrator, utilizing a SQL database for back-end organization and Java code for front-end interaction

EXPERIENCE

Teaching Assistant/Fellow (TA) Sep. 2020 - Present
Northeastern University

- Fundamentals of Computer Science II & Object-Oriented Design
  - Coach 100+ students on class material and best practices for solving homework problems during 1-on-1 office hours
  - Provide constructive feedback on Java homework assignments to track students' progress
- Organic Chemistry I
  - Devising original weekly recitation lesson plans based on important concepts from lecture
  - Reviewing key ideas and guiding 200+ students through practice problems on Zoom recitations

Volunteer Research Assistant Oct. 2019 - Present
Chai Lab

- Develop and optimize 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
- Build a computational platform in Python to identify bacterial enzymes that break down psychoactive drugs
  - Extract and processing data from the Protein Data Bank (PDB) API
  - Predict binding affinity between the drug and bacterial enzymes using DeepDTAF

Data Engineering Co-op (Full Time) 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: Java, Racket, Unix, Kotlin, Python, HTML, SQL, C, Assembly, JavaScript, R
Software: Git, LaTeX, Adobe Creative Suite (XD, Photoshop, Illustrator, Lightroom), Android Studio, Google Colab