

Ira Hysi

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EDUCATION

Northeastern University

Expected May 2025

Bachelor of Science in Chemical Engineering and Computer Science – *GPA: 3.5/4.0*

Courses: Object-Oriented Design, Database Design, Introduction to Machine Learning, Software Engineering, Mobile App Development, Algorithms & Data Structures

TECHNICAL SKILLS

Languages: Python, Java, Javascript, Typescript, C/C++/C#, MatLab, SQL (NoSQL, MySQL, Postgres), Go, Kotlin

Tools: Git, Docker, AWS (S3, Lambda, Bedrock), Figma, Kubernetes

Frameworks & Libraries: TailwindCSS, React, Angular, NextJS, React Native, Fiber, Spring, IoC

Machine Learning: Pandas, NumPy, Matplotlib, Sklearn, Keras, PyTorch

EXPERIENCE

Software Engineer, Generate Product Development

Sept 2024 – Present

- Designed and implemented 10+ RESTful API endpoints to facilitate efficient data exchange between the front-end and database, supporting core venue rating features.
- Created and managed database migration files to ensure seamless schema updates and maintain data integrity during feature rollouts.
- Developed and styled the front end for a venue rating screen, leveraging user-centered design principles to create an intuitive and visually appealing interface.

Machine Learning Intern, XGenomes Corp

July 2024 – Present

- Reduced computational resource needs by over 60% through the translation of a Python-based gene sequencing algorithm to a Julia codebase
- Optimized statistical modeling functions in Julia for GPU compatibility to enhance parallel processing efficiency
- Integrated MLOps platform for performance tracking, computational resource management, and improved visualization

Software Engineering Fellow, Headstarter AI

July 2024 – Aug 2024

- Designed, implemented and deployed 5 applications leveraging AI in 5 weeks using React.js, Next.js, Firebase, Clerk, Stripe, AWS and Vercel with agile teams
- Integrated CI/CD practices and agile methodologies, ensuring efficient and secure software development
- Participated in weekly SWE interview prep and career advancement sessions with engineers from Google, Y Combinator, Stanford, and Amazon

Computer Vision Intern, Roche/Genentech Inc

Jan – Sep 2023

- Enhanced internal data pipelines through the integration of a novel image pre-processing technique which reduced required data for training by over 80%
- Improved classification accuracy (~90%) through robust image processing and novel feature selection for preclinical oncological data analysis
- Presented to and mentored shareholders on model hyperparameter optimization and performance tracking through MLOps visualization dashboards

PROJECTS

Nightlife – Go, React, React Native, Supabase, Docker, Typescript, CSS, Postgres, Fiber, Nix

- Venue rating and suggestion mobile app that caters its recommendations to user preferences
- Personalized recommendation algorithm with access to community-wide reviews and a user's geographical location

Employ.ai – Javascript, NodeJS, TailwindCSS, Firebase, OpenAI

- Web application that leverages AI to generate job postings best suited to a user's previous work experience
- Integrates OpenAI text generation with the Adzuna API job listings for accurate and relevant user recommendations

Disease Prediction – Python, Torch, NumPy, Pandas, Sklearn

- Built a Graph Convolution Network to predict diseases from open-source symptomology records, utilizing DeepWalk for node embedding
- Evaluated model performance with standard metrics: accuracy, precision, recall, F1