SHEHRYAR HANIF

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EDUCATION

New York University   Abu Dhabi, UAE & New York, USA
B.S. in Computer Science, B.S. in Mathematics   Aug. 2019 − May 2023
Current CGPA: 4.00/4.00
Relevant Coursework: Applied Internet Technology, Natural Language Processing, Parallel Computing, Software Engineering, Algorithms, Data Structures, Linear and Nonlinear Optimization, Linear Algebra, Probability and Statistics

PROGRAMMING SKILLS

Skilled In: **Python** (Including **NLTK**, **Pandas**), **JavaScript** (Including **Express.js**, **Node.js**), **React** (Including **Hooks**, **Redux**, **Routers**), **HTML**, **CSS** (Including **Bootstrap**), **MongoDB**, **MySQL\PostgreSQL**
Familiar With: **C++\C** (Including **MPI**, **OpenMP**, **CUDA**), **MATLAB**, **AWS**, **Heroku**, **Firebase**, **TypeScript**, **R**

PROFESSIONAL EXPERIENCE

Full-Stack Development Intern   Jun. 2021 − Nov. 2021
Frich   New York City, USA (Virtual)
- Led web development efforts of interns working with social FinTech startup targeting Gen Z (currently valued at $5 million)
- Devised, designed, and developed web application (frich-ambassadors.herokuapp.com) for student recruits to register, log users, and chart progress through college ambassador program (github.com/ShehryarHanif/frichAmbassadors)
- Built back-end **REST API** in **Express.js**, and served **MySQL** data to custom-built **React** application through **React Routers** with **Axios**
- Implemented **JWT** authentication, designed UX/UI interface, built user and admin dashboards, and maintain hosting on **Heroku** with **AWS** (**RDS**) for databasing

Front-End Development Intern   Jul. 2021 − Aug. 2021
GlobeWyze Inc.   Markham, Canada & Rawalpindi, Pakistan (Virtual)
- Developed SPA application in **React** for ghost kitchens' online ordering systems, providing a customizable interface for venture capital firm's 5+ restaurant clients
- Implemented **OAuth** authentication through **Gmail** and **Firebase**, and set up website navigation with **React Routers**

RESEARCH EXPERIENCE

Machine Learning Research Assistant   Apr. 2021 − Present
New York University Abu Dhabi   Abu Dhabi, UAE
- Design text-to-code machine learning models while working with Assistant Professor Riyadh Baghdadi (Computer Science)
- Web-scrape and clean code snippets and explanations from stackoverflow.com, and build **Python** implementation of OpenAI's **GPT-3** language model by using **PyTorch**, **Scikit-Learn** and **TensorFlow**

Data Science Research Assistant   Sep. 2020 − Aug. 2021
New York University Abu Dhabi   Abu Dhabi, UAE
- Led coding and data analysis efforts for research team working with Assistant Professor Andy Harris (Political Science)
- Cleaned up 10+ datasets and conducted quantitative analysis (e.g., linear regression models, convex hull construction) by using **Python** (particularly **pandas**, **numpy**, **re**, and **beautifulsoup4**) and **R** (particularly **dplyr**, **ggplot2**, and **shiny**)
- Fuzzy-matched and geo-mapped election polling stations in Malawi to identify voting irregularities and incidence of fraud
- Web-scraped and analyzed polling stations data to see turnout differences between gender-segregated and combined stations

PROJECTS

handleBARS Fitness Tracker | github.com/ShehryarHanif/handleBARS   Apr. 2021
- Developed front-end and back-end of web application (handlebars-fitness-tracker.herokuapp.com) by using **HTML**, **CSS**, **JavaScript**, and **MongoDB**, with features including support for exercise-tracking and personalized exercises searches
- Implemented asynchronous **JavaScript** with **Fetch.js**, user authentication with **Passport.js**, web templating with **Handlebars**, and online hosting with **Heroku** and **MongoDB Atlas**

Brick Blast Game | github.com/ShehryarHanif/brickBlast   Oct. 2019 − Dec. 2019
- Programmed a desktop derivative of mobile game "Brick Blast Ball" in **Python** and **Processing**
- Constructed original randomized algorithms to provide infinite gameplay through procedurally generated levels
- Built innovative cannonball collision mechanic based on the Physics model of light and mirrored reflections

AWARDS AND HONORS

3rd in Punjab, Best Across Four Cambridge A Levels *Cambridge Assessment International Examinations* Nov. 2019
Top 10 in Pakistan, National Mathematics Talent Contest *Higher Education Commission*   Dec. 2018