Irsath Azeez

Bronx, New York 10471

irsathnir@gmail.com



Website Portfolio | GitHub | LinkedIn



646-755-2024

SKILLS

PROGRAMMING: C++ | Java | Python | JavaScript | PHP

DATA SCIENCE & MACHINE LEARNING: Python (Pandas, Scikit-learn, TensorFlow) | MySQL

| PostgreSQL | SQLite | Big Query (Cloud-large data), Microsoft Excel DATA VISUALIZATION: Matplotlib | Seaborn | Tableau | R | Looker Studio

SYSTEM ADMIN: Bash/Bat script

CYBER SECURITY TOOLS: Bash/Shell (Operating System) | Wireshark (Network) **SOFT SKILLS:** Detailed-oriented | Problem-solving | Technical mentorship | Data-driven

Decision making

PROJECTS

Amazon Sales Analysis:

- Led a data analysis workshop on Amazon Sales Reports, teaching students core data analysis techniques using large-scale datasets
- Covered topics such as feature engineering, data preprocessing, data selection, and visualization using Python
- Processed and stored data in MySQL; worked with a dataset of 128,976 rows and 21 columns (file size: 18 MB)

Earthquake Analysis of Turkey:

- Built a data visualization dashboard for Earthquake Analysis of Turkey to identify seismic activity trends and support disaster preparedness efforts
- Performed data filtering, feature selection, data engineering, and time-series analysis using Python
- Worked with a dataset containing 37,331 rows and 23 columns (file size: 6.1 MB)

Fraud Detection Model:

- Built a K-Nearest Neighbors (KNN) classifier to detect fraudulent financial transactions using Python.
- Preprocessed a large dataset (471 MB) and achieved 99% model accuracy after cross-validation.
- Visualized model performance using confusion matrix and ROC curve.
- Trained a machine learning model using a structured dataset of 6,362,620 records and 11 features, including data preprocessing, feature selection, and model evaluation to ensure robust performance.

Virtual Surveillance Monitor:

- Developed an active virtual surveillance system to monitor real-time activity across a computer's operating system for enhanced threat detection and CPU performance
- Implemented a Bash script to simultaneously inspect multiple system locations, improving response time to potential malicious behavior
- Created 9 window monitors to track and display real-time status of 9 distinct system tasks, enabling efficient multi-process observation and alerts

EXPERIENCE

College Assistant

CUNY Lehman College, The Bronx, New York | Aug 2022 - Present

- Tutored students in computer science with a focus on Java, Python, SQL, Operating System, fostering a deep understanding of core concepts and enhancing problemsolving skills
- Delivered hands-on troubleshooting and debugging support

College Assistant

CUNY Accelerated Study in Associate Program (ASAP) at BMCC, NY | Feb 2022 - Present

- Tutored students in computer science, covering basic and advanced C++ concepts
- Conducted workshops for students on Data Science and computer related topics

Research Scholar in Dr. Itsik Pe'er's Lab

Columbia University & Amazon (SURE Program), NY | June 2023 - Aug 2023

- Focused on single-cell microbiome analysis using data mining and machine learning
- Developed an efficient system design using Python to analyze metagenomic data

EDUCATION

CUNY LEHMAN COLLEGE

Bachelor of Science in Computer Science Jan 2021 - May 2024 | GPA 3.854

CUNY BOROUGH OF MANHATTAN COLLEGE

Associate of Science in Computer Science Aug 2018 - Aug 2020 | GPA 3.9

HONORS & AWARDS

Magna Cum Laude - CUNY Lehman College Dean's List - CUNY Lehman College Presidential Scholar – CUNY Lehman College

National Society of Leadership and Success (NSLS) - CUNY BMCC College Cyber Security Honors - CODE PATH Org **Dean's List** – CUNY BMCC College **HSI Battle of the Brains Competition** - Represented CUNY Lehman College IATA Travel & Tourism - Best Performer in the country of Sri Lanka

COURSEWORK

Data Structure & Algorithm **Operating System Analysis Database Systems** Cyber Security **Machine Learning Applied Statistics** Cloud Computing (Google)

LANGUAGES

Tamil Sinhala

INTERESTS

Fitness Cricket Soccer **Traveling**