Ishan Mukherjee
GitHub
ishan.mukherjee02@gmail.com

44 Melrose Rd
Mountain Lakes, NJ 07046
973-270-7512

Summary & Objective

- Looking for Full Time positions in Software Engineering

Education

Rensselaer Polytechnic Institute   2020-2024
Bachelor of Computer Science, w/ Minor in Economics

Work and Project Experience

Python Development Internship, Aireon   05/15/23 – 08/11/23
Space-Based ADS-B Air Traffic Surveillance

- Worked on multiple upgrades to the billing system used by the company, in an Agile team environment with daily stand ups and bi-weekly Scrum meetings.
- Changed core billing program from Pandas to Polars.
- Added new functionality to billing program including automatic Excel file generation where applicable to save time and avoid human errors.
- Gained experience in multiple new technologies including Polars, Pandas, Azure DevOps, and MsSQL.
- Created command line program to stream line billing process
- Presented results of upgrades in presentation to management – with about 50% decrease in application runtime and 40% decrease in storage

Data Scientist Internship, Mareana   05/31/21 – 07/30/21
Enterprise-Scale AI products for Supply Chain & Unstructured Data

- Assigned to a team to create a *document classification application* using *convolutional neural network models*
- Trained a machine learning model to recognize different documents and deployed the product using Docker.
- Presented final product to senior management and gained approval for use in future data solutions
- Skills in different CNNs (ResNet50 & VGG16) and multiple Machine Learning libraries (TensorFlow, Anaconda, and Pandas)

Skills and Projects:

- Languages: C/C++, Java, Python, Rust, SQL
- Projects in listed on GitHub page with documentation
- AWS Cloud Technical Essentials Certification with project experience
- Experience in Git and Azure DevOps in a team environment
- Used ML libraries such as TensorFlow, Anaconda, Pandas, Polars, Keras and OpenCV
- Multiples years of experience in both UNIX and Windows operating systems

Some Related Coursework

Machine Learning from Data	Theory and applications of machine learning, including neural networks, SVMs, and Reinforcement Learning
Machine Learning Seminar	Focused on the state-of-the-art research on machine learning by exploring advanced research topics and emerging techniques.
AI and Blockchain	How leveraging blockchain technology can benefit AI and how applying AI can enhance the capabilities of blockchain technology
Computer Organization	Explored elements of computer architecture and lower-level languages such as MIPS and x86
Operating Systems	I/O programming, process and memory management, deadlock problems, interprocess communications
Cryptography & Network Sec.	Course includes number theory, basic cryptography, protocol security (block ciphers, web security)
Principles of Software	Study of important concepts in software design, implementation, and testing
Algorithms	Data structure and algorithms and mathematical techniques needed to design and analyze
Foundation of Comp. Sci.	Mathematical & theoretical tools for applications in Set theory, combinatorics, automata theory, etc.
Data Structures	Using data structures in C++ for image recognition, path finding, other data storage mechanisms

Academic & Related Achievements/Awards:

President of Rensselaer Archery Club 23/24
National Honors Society
German National Exam – Level 4 Gold Medalist
B1 German Language Certification

Language Communication Proficiencies

English, German, Bengali, Spanish, Hindi