HARSHIT SONI

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EDUCATION

Binghamton University, State University of New York

Expected Dec 2024

Master of Science in Computer Science, Concentration in Artificial Intelligence | Cumulative GPA: 3.56 /4.00

Relevant Courses: Data Structures and Algorithms, Machine Learning, Artificial Intelligence, Programming Language, Design Patterns

TECHNICAL SKILLS

Languages: Python, SQL, C, C++, HTML/CSS, JavaScript, Java

Tools: Flask, AWS (S3, EC2, IAM), GCP, Pandas, NumPy, GIT, MATLAB, Scikit-learn, TensorFlow, Keras, Cuda, Shell, ETL Additional: Automation, Data Analysis, Image Processing, NLP, Quantitative Analysis, Statistical Modeling, Selenium, LLM, RDMS Certifications: JPMorgan Software Engineering Virtual Internship Experience, Construct Stock Market Indices, Profit Analysis using Economic Value Added, Git for Developers, Mathematics for Machine Learning

PROFESSIONAL EXPERIENCE

Julius Education, *Machine Learning Engineer* | New York City, NY

Jun 2024 - Sept 2024

- Developed and deployed machine learning models for career dashboards, enhancing green labor seekers' experience through data integration. Utilized AI, RAGs, and prompt engineering techniques to optimize sentence structure for data dashboard renewable roles
- Led data labeling, scraping, and cloud service storage processes for government website data, ensuring accuracy and usability
- Collaborated with the VP on various client projects, contributing to diverse solutions such as building data pipelines including NREL

Trust Scout, Software Engineering Intern | New York City, NY

Jun 2023 - Aug 2023

- Engineered an automated email system and AI-driven prompter, reducing manual efforts by 80%, elevating client interaction by 40%
- Led data analysis on **10M** real estate transactions and **1.6M** agents, delivering insights that directly improved decision-making and enhanced client relations, through statistical modeling, machine learning models, and big data for storage
- Collaborated with the **Founder/CEO** to enhance database and marketing strategies, resulting in a 25% increase in client satisfaction and a **33.3%** growth in the sales team. Technologies utilized: Python, AWS, Django, PostgreSQL, APIs, and OpenAI

RoboticsForSure, *Software Engineering Intern* | Remote

Jun 2021 – Aug 2021

- Implemented Robotics Process Automation (RPA) within ML and C++ projects, achieving a **30%** reduction in processing time by automating data preparation phases for clients
- Automated data analysis and math operations, and developed live ML solutions via the Google Cloud and AWS for data extraction

Fiverr, Freelancer | Remote

Mar 2021 – Aug 2021

- Delivered custom data mining and automation algorithms for 7+ international clients, boosting efficiency by 10-25%
- Constructed a comprehensive database for South African election research analysis using Twitter data and news articles
- Designed and deployed a Twitter Bot for auto-replies and retweets, enhancing client social media engagement

RESEARCH EXPERIENCE

Binghamton University, Research Assistant for Human-Computer Interaction

Jan 2024 – Mar 2024

- Researched to enhance real-time ASL recognition by application of ML models, image processing, and Natural Language Processing
- Advanced models through Neural networks, and computer vision to tackle research challenges of hand recognition

Binghamton University, Research Assistant for Semiconductor Fabrication

Jan 2023 – May 2023

- Researched the feasibility of ML (Pytorch, CUDA) autoencoder for optimizing microscopic filter design in semiconductors
- Formulated an exploratory algorithm using Neural Networks to fabricate semiconductors

PROJECT EXPERIENCE

Analyzing Stock Market Sentiment and Price Movements, Team Project

Aug 2023 – Dec 2023

- Led full-stack development of predictive analytic model for social media sentiment and S&P stocks, using NLP and statistical method
- Managed real-time data collection from Reddit (6k posts, 80k comments) and Yahoo APIs using PostgreSQL
- Developed Flask dashboard with Matplotlib for sentiment visualization, utilizing Docker and Python on remote servers

Wear Your Weather, Independent Project (link)

Hackathon (Secured 2nd out of the 49 teams) (link)

Oct 2020 – Jan 2021

Created a dynamic web application delivering real-time weather forecasts using APIs and personalized outfit suggestions, enhancing user experience and daily decision-making. Tech stack utilized: Python, Flask, SQL, HTML/CSS, and JavaScript

Python and Arduino Integration, Independent Project (<u>link</u>)

May 2020 - Jul 2020

- Integrated Arduino systems with Python via the Pyfirmata Library, enabling seamless communication between OS and Arduino
- Engineered a program for the Arduino to run continuously, optimizing board space without occupying memory

LEADERSHIP & HONORS

IEEE, Published Research Paper 'Fake News Detection Using NLP and Logistic Regression'

Sept 2021

Jul 2020

- Led a team of 3 to develop a 'Fake News Detection Model using Machine Learning and Natural Language Processing'
- Built an ML model to classify news as "fake" or "real," providing users with verified news, enhancing digital media's reliability
- Integrated the model with a Twitter bot that replies to a tweet when tagged, a stand-out feature that elevated the project