HARSHIT SONI

New York | 347-818-5361 | *hsoni1@binghamton.edu* | *Linkedin (harshitsoni01)* | *harshitsoni.com* | *harshitsoni01 · GitHub*

EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science
Master of Science in Computer Science with Artificial Intelligence track   **Aug 2022 – May 2024**
Thadomal Shahani Engineering College, Mumbai University, India
Bachelor of Technology in Electronics and Telecommunication Engineering   **Aug 2018 – May 2022**

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, JavaScript, SQL, MySQL
Tools: Flask, Selenium, Pandas, NumPy, GIT, MATLAB, Arduino, Scikit-learn, TensorFlow, Keras, Statistical Modeling, Cuda, Shell
Skills: Automation, AWS Services (S3, EC2, IAM roles, and policy), Data Analysis & mining, Data Modelling, Data Structures and Algorithms, Database, Machine Learning, Math (Linear Algebra, Calculus, and Probability & statistics), PostgreSQL, Quantitative Analysis

PROFESSIONAL EXPERIENCE

Binghamton University, Graduate Grader for Machine Learning course | Binghamton, New York   **Jan 2023 – Present**
- Created and graded 6 exams, 5 assignments, and 6 projects for a class of 50 students for Machine learning, and provided constructive feedback to enhance student's understanding and performance
- Collaborated closely with the professor and another teaching assistant to ensure consistent and accurate grading, while also serving as a knowledgeable and helpful resource for students, enhancing their experience, and clarifying complex Machine Learning concepts

Trust Scout, Software Engineering Intern | New York City, New York   **June 2023 – Aug 2023**
- Developed an automated emailing system and AI prompts using AWS, Django, and OpenAI, streamlining client processes and reducing manual efforts by up to 80% for daily emails to clients, which increased the agents-to-client interaction by 40%
- Analyzed and interpreted data from datasets of 20-30 million records of real estate customers and agents in the USA using mathematical and coding techniques, providing valuable insights that enhanced client decision-making and drove business strategy
- Collaborated directly with the founder/CEO, contributing expertise to software projects, and delivering high-quality solutions that increased client satisfaction by 25% for database management and marketing and expanded the sales team members by 33.3%

RoboticsForSure, Software Engineering Intern | Remote   **June 2021 – Aug 2021**
- Implemented Robotics Process Automation (RPA) in machine learning projects to increase operational efficiency
- Successfully automated tasks, such as data analysis and math calculations, resulting in a significant time reduction of 30% for clients
- Proposed, developed, and deployed live machine-learning solutions for automating data extraction processes

Fiverr, Freelancer | Remote   **Mar 2021 – Aug 2021**
- Customized various data mining and automation algorithms for over 7 international clients, improving their efficiency by at least 20%
- Constructed a comprehensive database of Twitter data and news articles for the South African election for a client's research paper
- Designed, and deployed a Twitter Bot which auto-replies to tweets and retweets when tagged, enhancing social media engagement

RESEARCH EXPERIENCE

Binghamton University, Segment Fabrication Filter Design Using Machine Learning   **Jan 2023 – May 2023**
- Researched the feasibility of using ML autoencoders for optimizing microscopic filter designs in semiconductor production
- Formulated an exploratory algorithm to convert the filter shapes into probabilities of light passing through slits across different wavelengths of light, laying the groundwork for future implementation in semiconductor fabrication

PROJECT EXPERIENCE

Stock Market Prediction Using Neural Networks and Social Media Analysis, Team Project   **April 2022 – May 2022**
- Developed a neural network model to forecast stock market trends using historical data, improving prediction accuracy up to 85%
- Leveraged natural language processing techniques to analyze and interpret data from social media and news articles
- Applied machine learning techniques to train the model, and conducted comprehensive backtesting to validate the model's performance

Wear Your Weather, Independent Project (link)   **Oct 2020 – Jan 2021**
- Developed a web app that provides real-time weather updates and gives outfit recommendations based on the day's weather, enhancing user experience and daily decision-making. Utilized a stack including Python, Flask, SQL, HTML/CSS, and JavaScript

Fake News Detection, Team Project (link)   **June 2020 – July 2020**
- Built an ML-based model that detects and labels the questioned news as "fake" or "real" & then provides validated news articles
- Integrated the detector with a Twitter bot which replies to a tweet when tagged, identifying the headline as REAL or FAKE

Python and Arduino Integration, Independent Project (link)   **May 2020 – July 2020**
- Integrated the Arduino systems with Python language using the Pyfirmata Library, explicitly created to incorporate them
- Innovated program will always run when attached to the system without taking up any space on the Arduino
- Some of the projects include Digital Dice, Tkinter controlled LED, Accelerometer (tilt-sensor), Rotary encoder (angle-sensor)

CERTIFICATIONS

Construct Stock Market Indices from Coursera   **Dec 2022**
Profit Analysis using Economic Value Added from Coursera   **Dec 2022**
JPMorgan Software Engineering Virtual Internship Experience on Forage   **Sept 2022**
- Used Perspective data visualization software and Python to monitor stock price trends and create trading strategies

Git for Developers from Coursera   **Oct 2020**
Mathematics (Linear Algebra, Multivariate Calculus, and PCA) for Machine Learning from Imperial College London   **July 2020**

LEADERSHIP & HONORS

IEEE Xplore Research Paper   **Sept 2021**
- Led a team of 4 for the R&D of the paper "Fake News Detection Using Natural Language Processing and Logistic Regression"
- Received a certificate for excellent team presentation

Hackathon (Placed 2nd out of the 49 teams)   **July 2020**
- Led a team of 3 to develop a custom Fake News Detection Model using Machine Learning and Natural Language Processing
- Deployed the model on a web app, alongside a Twitter Bot, utilizing technologies such as Flask and Twitter API respectively