

HARSHIT SONI

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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, MATLAB

Tools: Flask, Selenium, Pandas, NumPy, GIT, Arduino, Scikit-learn, TensorFlow, Keras, Statistical Modeling, Cuda, Shell

Skills: Automation, AWS services, Data Analysis & Mining, Data Structures & Algorithms, Machine Learning, Math (Linear Algebra, Calculus, and Probability and Statistics), Quantitative Analysis

PROFESSIONAL EXPERIENCE

TRUST SCOUT

June 2023 – Aug 2023

Software Engineering Intern

New York City, New York

- 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 emails to clients, which increased the agents-to-client interaction by 40%
- Analyzed and interpreted data from datasets of 20-30 million records using advanced mathematical and coding techniques, providing valuable insights that enhanced client decision-making and drove business strategy
- Collaborated directly with the founder/CEO, contributing technical expertise to crucial software projects, and delivering high-quality, bespoke solutions that increased client satisfaction by 25% and increased the sales team members by 33.3%

SUNY BINGHAMTON

Jan 2023 – May 2023

Graduate Grader for Machine Learning course

Binghamton, New York

- Leveraged my expertise in Machine Learning to grade 5 exams and 6 projects for a class of 50 students, 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 accessible resource for students, enhancing their experience and clarifying complex Machine Learning concepts

ROBOTICS FORSURE

June 2021 – Aug 2021

Software Engineering Intern

- 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
- Designed, developed, and deployed a live machine-learning solution for automating data extraction processes

FIVERR

Mar 2021 – Aug 2021

Freelancer

- Developed 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 the client's research paper
- Designed, and deployed a Twitter Bot which auto-replies to tweets and retweets when tagged, enhancing social media engagement

AUSTEN C&C

June 2019 - July 2019

Digital Marketing Intern

- Collaborated with the client servicing team managing diverse client requirements, and enhancing my skills in client relationship
- Developed creative elements such as web pages tailored for branding and marketing purposes, increasing client engagement
- Implemented SEO strategies on client websites, resulting in an increase of 20% in user engagement

PROJECTS

Stock Market Prediction Using Neural Networks and Social Media Analysis

April 2022 – May 2022

Team Project

- 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****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 tech stack including Python, Flask, SQL Database, HTML, CSS, and JavaScript

**Twitter Scraper
Independent Project****July 2020 – Aug 2020**

- Developed a script capable of scraping tweets and related details without the necessity of a Twitter developer account
- Utilized libraries such as BeautifulSoup and Selenium to scrape them and visualized the data using matplotlib and pandas

Fake News Detection**June 2020 – July 2020****Team Project**

- Built an ML-based model that detects and labels the questioned news as “fake” or “real” & then provides validated news articles related to the questioned 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**May 2020 – July 2020****Independent Project**

- Integrated the Arduino systems with Python using the Pyfirmata Library, explicitly designed to incorporate them
- Developed 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 control LED, Accelerometer (tilt-sensor), Rotary encoder (angle-sensor)

RESEARCH EXPERIENCE**Segment Fabrication Filter Design Using Machine Learning****Jan 2023 – May 2023****Binghamton University****Binghamton, New York**

- Researched the feasibility of using autoencoders for optimizing microscopic filter designs in semiconductor production, utilizing machine learning algorithms
- Designed 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

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****LEADERSHIPS & 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**July 2020**

- Placed 2nd out of the 49 teams
- 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