

HARSHIT SONI

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EDUCATION

Binghamton University, State University of New York

Expected May 2024

Master of Science in Computer Science with Artificial Intelligence track

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

University of Mumbai

Bachelor of Technology in Electronics and Telecommunication Engineering

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), Google Cloud (GCP), Data Analysis & Mining, Machine Learning, Math (Linear Algebra, Calculus, and Probability and Statistics), Quantitative Analysis, NLP, Image Processing, RDMS

PROFESSIONAL EXPERIENCE

TRUST SCOUT

June 2023 – Aug 2023

Software Engineering Intern

New York City, New York

- Engineered an automated email system and AI-driven prompter, reducing manual email efforts by 80% and elevating client interaction by 40%
- Led data analysis on 30M real estate transactions and 1.6M agents, delivering insights that directly improved decision making and enhanced client relations, through statistical modeling and machine learning models
- Collaborated with the Founder/CEO to enhance database and marketing strategies, resulting in a 25% increase in client satisfaction and a 33.3% growth of the sales team. Technologies utilized: Python, AWS, Django, PostgreSQL, and OpenAI

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 efficiency by 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 creatives 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

RESEARCH EXPERIENCE

Binghamton University

Jan 2024 – Mar 2024

Research Assistant with Professor Yincheng Jin

Binghamton, New York

- Specializing in Human Computer Interaction (HCI) research to enhance real-time ASL recognition by application of ML models, image processing, and NLP
- Actively advancing models through Neural networks, and computer vision to tackle research challenges of hand recognition

Binghamton University

Jan 2023 – May 2023

Research Assistant with Professor Adnan Rakin

Binghamton, New York

- Researched the feasibility of Machine Learning (Pytorch, CUDA) autoencoder models for optimizing microscopic filter design in semiconductors

- Formulated an exploratory algorithm using Neural Networks to fabricate semiconductors

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 upto 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

Oct 2020 – Jan 2021

Independent Project

- 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

July 2020 – Aug 2020

Independent Project

- Developed a Python 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
- 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 lang using the Pyfirmata Library, made 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)

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

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

IEEE Xplore Research Paper

Sept 2021

- Led a team of 4 for the Research & Development 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 '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