Saleep Shrestha

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EDUCATION

The University of Southern Mississippi (USM), Hattiesburg, MS — August 2023 - May 2027
Bachelor of Science in Computer Science, Economic Data Analysis Minor, Honors Scholar — GPA: 4.00/4.00
Relevant Courses: Data Structures and Algorithm Analysis, Computer Systems

PROJECTS

Sudoku Solver — December 2024
Lead Developer — Github Link
- Implemented a C++17-based Sudoku solver reducing average puzzle solution time by 60% by using a Ternary Search Tree algorithm for optimized backtracking and real-time conflict detection
- Designed a modern Qt6-based, dark-themed GUI increasing user engagement by 25% through intuitive input validation, dynamic feedback, and streamlined puzzle navigation

HealthCheck — November 2024
Lead Developer — Github Link
- Implemented a multilingual medical checklist web app improving patient/family procedure adherence by 20% by integrating OpenAI-based translation APIs and TTS features

Trading Bot for S&P 500 Stocks — September 2024
Lead Developer
- Developed a Python-based trading bot that improved buy/sell signal accuracy by 15% by integrating MACD, RSI, and Volume Moving Averages on 500+ S&P stocks using yfinance and pandas
- Automated trading notifications reducing manual monitoring time by 100% via Twilio and SMTP APIs

Server's Tips Analysis — July 2024
Data Analyst — Notebook Link
- Analyzed 1,000+ tipping records identifying a 30% higher tip rate in larger groups by using Python, Matplotlib, and Seaborn to find demographic tipping patterns

Sentiment Analysis — April 2024
Researcher — Github Link
- Improved sentiment classification accuracy by 20% on 700+ Elon Musk/Tesla-related news articles by using the Arabica library and advanced preprocessing in BeautifulSoup

EXPERIENCE

School of Computing Sciences and Engineering, USM — Present
Undergraduate Research Assistant — Hattiesburg, MS
- Enhanced phishing detection research improving dataset accuracy by 10% by preprocessing and analyzing 1,000+ email samples with predictive modeling techniques in Python
- Contributed to a 5 person research team accelerating project timelines by 15% through data cleaning, feature engineering, and automation scripts

Housing and Residence Life, USM — Present
Resident Assistant — Hattiesburg, MS
- Managed a community of 40+ residents increasing engagement by 25% by organizing monthly tech workshops, Q&A sessions, and social events that fostered a supportive living environment

Google Developer Student Clubs (GDSC) — Present
Member — Hattiesburg, MS
- Developed a Python-based web scraping project improving data extraction efficiency by 10% by deploying BeautifulSoup and REST APIs to automate collection from a manga website
- Collaborated with a 50+ developer community driving solution ideation for real-world problems by using Google Cloud tools and open-source technologies

ACHIEVEMENTS

USM	Presidents List	2024
USM	Presidents List	2023
USM	Honors Discovery Scholarship	2023

TECHNICAL SKILLS

Languages: Python, C, C++, SQL, JavaScript
Tools & Frameworks: Pandas, Numpy, Matplotlib, Seaborn, Scikit-Learn, Tensorflow, Open AI API, BeautifulSoup, Github
Concepts: Machine Learning, Regression Analysis, Quantitative Data Modeling, Automation, ETL
Additional Skills: Multilingual Support Integration, REST APIs, Data Visualization, Data Scraping