





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, Honors Discovery Scholar, 3x Presidents List

GPA: 4.00/4.00

Relevant Courses: Data Structures and Algorithm, Design for Defense (DS4D), Software Development

PROJECTS

Exium

December 2024

Co-founder, Developer

[Github Link](#)

- Developed a React-based coding exam platform with integrated Monaco Editor and Azure based cloud computing, achieving 99.9% uptime and enabling real-time execution for 100+ concurrent users
- Secured \$500 in seed funding by presenting to USM Hatchery judges
- Worked closely with back-end developers to reduce operational costs by 30% via Microsoft Azure

Sudoku Solver

December 2024

Lead Developer

[Github Link](#)

- Deployed 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, real-time user feedback, and streamlined puzzle navigation

Manimator

November 2024

Front-end Developer

[Github Link](#)

- Built a responsive React front-end for an AI-powered math animation tool, boosting UI responsiveness by 60% using lazy loading and optimized state management
- Integrated Flask APIs with OpenAI GPT-4 to generate Manim code from prompts, enhancing tutoring session engagement by 40%

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

Founder

- Created 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

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
- Improved research efficiency by 15% by leading data cleaning, feature engineering, and writing automation scripts for a 5-person phishing detection research team

Housing and Residence Life, USM

Present

Resident Assistant

Hattiesburg, MS

- Led 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

TECHNICAL SKILLS

Languages: Python, C++, C#, JavaScript C, R, SQL

Tools & Frameworks: Pandas, Numpy, Matplotlib, Seaborn, Scikit-Learn, Tensorflow, Open AI API, BeautifulSoup

Concepts: Machine Learning, Regression Analysis, Quantitative Data Modeling, Geospatial Analysis

Additional Skills: Multilingual Support Integration, REST APIs, Data Visualization, Data Scraping