

Pappu Jha

Hattiesburg, MS | jhapappu7165@gmail.com | pappu.jha@usm.edu | jhapappu.com.np
linkedin.com/in/pappujha2004 | github.com/jhapappu7165

Education

Bachelor of Science in Computer Science Aug 2023 – May 2027
Minor in Economic Data Analysis & Honors Keystone Scholar GPA: 4.0/4.0
The University of Southern Mississippi (USM) – Hattiesburg, Mississippi
TEDxSouthern Miss 2025 Speaker
Applicable Coursework: Statistics, Data Structures and Algorithms, Software Development Foundations

Skills

Programming: Python, C++, Object Oriented Programming (OOP), API
Web Development: HTML, CSS, JavaScript, WordPress
Artificial Intelligence: Machine Learning Classification & Regression, Supervised Algorithms (Random Forest, Logistic Regression, Naive Bayes), Data Analysis (Pandas, NumPy), Visualization (Seaborn, Matplotlib)
Information Technology: MS Office (Excel, PowerPoint, Access), Slack, Google Workspace, Cloud Services, Content Management System (CMS), GitHub, Database (MongoDB), SQL
Spoken Languages: English, Nepali, Maithili (Native), Hindi

Work Experiences

Information Technology Intern, Jones Capital – Hattiesburg, MS Sept 2025 – Present

- Providing technical support for **Jira Service Management** by configuring service management systems and automating workflows, enhancing response time and service efficiency.
- Maintaining **documentation** using **Confluence** to support knowledge sharing on **AI tools** and **IT systems**, improving onboarding and troubleshooting for both customers and staff.

Research Assistant, Institute for Advanced Analytics and Security – Hattiesburg, MS May 2025 – Present

- Built and published **AQUAVIEW**, a Python library exposing more than 7 API endpoints for streamlined access to oceanographic data for **NOAA (National Oceanic and Atmospheric Administration)**.
- Analyzed **2M+ big data** from 125 years of **World Ocean Database**, generated their **metadata**, indexed in **Google Cloud**, and integrated into the **UI**, contributing to NOAA's **software development**.
- Developed an **LLM-powered** classification tool to assign Platform IDs for Uncrewed Marine Systems using **metadata**, streamlining NOAA's operation across 10+ data sources.

Web Developer, Roy Howard Community Journalism Center – Hattiesburg, MS Oct 2024 – May 2025

- Designed and maintained the organization's **website** using **SNO WordPress**, boosting user engagement by 30% through improved **UI/UX**.
- Optimized **Search Engine Optimization (SEO)** by indexing webpages, resulting in an increase in site traffic on **Google Search Console**.

Learning Assistant, USM Comparative Religion Course – Hattiesburg, MS Aug 2024 – May 2025

- Facilitated group work for mutual learning, increasing student participation by 40% during teamwork.
- Collected and provided feedback to the instructor on student experiences, addressing 30% more student concerns over the semester.

Research Experience

Undergraduate Research Assistant (Volunteer), Cyber Innovation Lab Sept 2024 – Present

- Led two cybersecurity research projects using machine learning in collaboration with faculty and mentors, resulting in an acceptance at the **SEDE 2025 conference**, and **1st award at the USM Research Symposium**.

- Authored scientific papers summarizing literature reviews, data analyses, model development, and evaluations to address real-world cybersecurity threats.

Research Project

Adversarial Machine Learning for Robust Password Strength Estimation

[Link](#)

Advisor: Dr. Nick Rahimi, USM Associate Professor

Sept 2024 – Apr 2025

- Developed five **predictive models** using **adversarial** datasets, **supervised machine learning** classification algorithms, and **Python** programming to estimate password strengths, increasing classification accuracy by 20%.

Projects

Regulating College Dormitories Digitally Using C++

[Link](#)

Advisor: Mr. Rick Loggins, USM Faculty Member

Nov 2023

- Built a dormitory management back-end system using all concepts from the introductory C++ course, streamlining student check-ins/outs and visitor logs, reducing manual tracking effort by 60%.
- Integrated rule enforcement features to automatically flag dorm violations, improving housing compliance oversight of 500+ students.

A Deeper Dive Into Education And Virtual Reality

[Link](#)

Advisor: Dr. Partha Sengupta, Assistant Teaching Professor

Aug 2024 - Oct 2024

- Led a team of 6 in a semester-long project exploring the scope of Virtual Reality in Education, completing a comprehensive literature review and fulfilling course requirements.
- Authored major sections of a research paper—including abstract, introduction, conclusion, and ethics/cyber law considerations—contributing the largest share of content in the team's submission to the Chicago conference.

Leadership Experiences

Creative Director, The Entrepreneurship Society, USM

Apr 2025 – Present

- Conducted marketing of the organization via social media, mass emailing, and distributing flyers, increasing the membership to more than 40 in a week.

International Ambassador/Mentor, USM Center for International Education

Dec 2023 – Present

- Supported 100+ international students by managing pre-arrival communication on **Unibuddy** and on-site onboarding to ensure a smooth transition to the United States.

Director of Finance, USM Residence Hall Association

Apr 2024 – May 2025

- Formulated budgets for 8+ RHA events with 1000+ attendees, coordinating with board members and advisors to ensure successful execution and efficient resource allocation.

Honors

USM President's Lists: Fall 2023, Spring 2024, Fall 2024, and Spring 2025

Aug 2023 – May 2025

Honors Keystone Scholarship, USM Honors College

Aug 2025

International Ambassador of the Year, USM Center for International Education

Apr 2025

Innovation & Excellence Award, Roy Howard Community Journalism Center, USM

Apr 2025

First Position under 'Computation Approaches', USM Undergraduate Symposium on Research & Creative Activity (UGS)

Apr 2025

Academic Excellence Scholarship, The University of Southern Mississippi

Aug 2023

Reference

Dr. Nick Rahimi

Associate Professor

School of Computing Sciences and Computer Engineering

The University of Southern Mississippi

Main Office: (601) 266-4949 Direct: (601) 266-4487

Email: nick.rahimi@usm.edu