

THARUN KUMAR VASPARI

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EDUCATION

Clemson University

Masters in Computer Science

Clemson, SC, USA

August 2024 - May 2026

Osmania University (OU)

Bachelor of Engineering in Computer Science & Engineering

Hyderabad, India

August 2024 - May 2026

Cumulative **GPA : 8.31/10.0**

Relevant Coursework: Artificial Intelligence, Machine Learning, Data Science, Data Structure and Algorithms, Database Management System, Operating System, Software Engineering, Java, Design and Analysis of Algorithms

EXPERIENCE

Project Intern / Attic Infomatics

Hyderabad, India

Web Application Development on Aviation using PHP

June 2023 - January 2024

- Designed and developed a responsive web application for Flight booking showcasing skills in modern frontend technologies to ensure a seamless and interactive user experience across various devices.
- Designed an intuitive user interface that enables users to easily search for flights and view prices.
- Implemented efficient backend services to handle data processing and integrate with the frontend, optimizing website performance and ensuring smooth functionality for end users.

TECHNICAL SKILLS

Languages: C/C++, Python, Java, HTML/CSS, JavaScript

Frameworks: NumPy, OpenCV, TensorFlow, pandas, Scikit, Angular, Node.js, React.js

Tools: Microsoft Word, Excel, Jupyter Notebook, PyCharm, AWS, Power BI, Microsoft Azure

Databases: MongoDB, SQL

PROJECTS

Enhancing Data Security in the Cloud with Semi-Trusted Third-Party Involvement

Domain: Cloud Computing

May, 2024

- Designed and implemented an innovative privacy-preserving public auditing mechanism for shared cloud data, leveraging advanced cryptographic techniques to ensure efficient data verification while safeguarding user identity and addressing privacy concerns.
- Demonstrated skills in **Advanced Encryption Standard(AES)** for Encryption of data, **Simple Mail Transfer Protocol (SMTP)** for secure communication between the data owners and the users, and **Message Digest 5 (MD5)** to verify the integrity of the data.

Currency Recognition System Using Image Processing

Domain: Machine Learning

March, 2024

- The recognition of currency by its image or photograph. It will help users to recognize details about currency like Currency Value, Currency Name, the value in INR, EURO and US Dollar.
- It works using the main characteristics of currency notes such as size, color or printed text on it. This system works accurately and also able to quickly identify the currency notes with an accuracy of **97%**. The Python libraries used for Feature Extraction and Template Matching are **cv2.TM_CCOEFF_NORMED**, **cv2.COLOR_BGR2GRAY**.

Implementation of Secured Watermarking Mechanism Based on Cryptography and Bit Pairs Matching

Domain: Digital Image Processing and Cryptography

November, 2023

- Developed and implemented a secure watermarking mechanism integrating cryptographic techniques, including **Advanced Encryption Standard (AES)** and **Rivest-Shamir-Adleman (RSA)** algorithms, with bit pairs matching to protect digital media.
- Utilized **Least Significant Bit (LSB)** algorithm to embed and extract watermarks securely within digital images, ensuring robustness and confidentiality.
- Enhanced the system's resilience against unauthorized access and tampering by leveraging bit pairs matching and Hamming Code for accurate and secure watermark detection.

CERTIFICATIONS

- **Microsoft Certified : Azure Fundamentals** | Microsoft
- **Crash Course on Python** | Coursera
- **Python For Data Science, AI & Development** | Coursera
- **Data Structures and Algorithms** | Coursera
- **Database Programming with SQL** | Oracle Academy

EXTRA CURRICULAR ACTIVITIES

Volunteer at National Service Scheme

- Attended service camps dedicated to the welfare of underprivileged children and societal development.

Member of The Institution of Engineers India

- Involved in discussions and activities related to engineering advancements.

Sports

- Participated in college-level tournaments in cricket demonstrating my commitment to a well-rounded and balanced lifestyle.