

RAJ PATEL

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EDUCATION

University of the Pacific

August 2022 – December 2024

Master of Science in Computer Science

GPA: 3.6/4

Coursework: Advance Algorithms, Data Science, Web Development, Advanced Data Analytics, Secure Software Systems, Machine Learning Methods for Cybersecurity, System Admin and Security, Business Analytics, Techniques in Research, Interaction Design.

August 2017 – May 2021

LDRP Institute of Technology and Research

Bachelor of Engineering in Computer Engineering

GPA: 3.3/4

Coursework: Data Structure and Algorithms, Artificial Intelligence, Software Engineering, Operating Systems, Computer Organization and Architecture, Computer Networks, Database Management System, Compiler Design, Big Data Analytics, Internet of Things.

SKILLS

- **Languages :** Python, C++, Java, JavaScript, SQL, C, Verilog.
- **Frameworks and Libraries:** React, Angular, Bootstrap, Django, Node.js, NumPy, Pandas, OpenCV, NLP libraries
- **Tools and Technologies:** Linux, HTML, CSS, Git, Docker, AWS, VS Code, Google Colab, Android Studio, R Studio, MongoDB, MySQL, SQLite, Oracle, PostgreSQL, Tableau, Power BI, Excel.
- **Certification:** AWS Cloud Practitioner

EXPERIENCE

ShreeHari Technology

June 2021 – December 2021

Software Developer-Frontend (Internship)

- Built and maintained websites using React.js, MongoDB, JavaScript, HTML, and CSS, which increased website traffic by 25%.
- Improved website performance by making it load 30% faster and leading to better user experience.
- Developed frontend skills and collaborated with a team to solve real-world problems, delivering impactful and effective solutions.
- Applied agile methodologies and project management skills to streamline development processes and enhance team productivity.

ACADEMIC PROJECTS

Machine Learning-Driven Attack Classification and Forecasting using Honeypots

September 2024 – Present

- Concepts Used: Explainable AI (XAI), Regression Model, ARIMA, and Classification Models.
- Used classification models like Random Forest Classifier, Decision Tree Classifier, KNN, SVM, and Logistic Regression to classify honeypot attack data, achieving 92% accuracy with Random Forest Classifier.
- Applied Explainable AI (XAI) tools, such as LIME, to identify the key features that affect the classification of attacks.
- Used Random Forest Regression and ARIMA models to predict the time and protocol of future attacks.

Speech to Text Summarization

January 2023 – August 2023

- Concepts Used: Natural Language Processing (NLP), Speech Recognition, TextRank Algorithm, and Google Speech-to-Text API.
- Data used: Collected audio data from college lectures and meeting recordings.
- Accuracy: Achieved 90% accuracy in summarizing speech data and system saved almost 75% manual work.

Producer Consumer with Shared Memory

August 2022 – December 2022

- Developed a C++ simulation to demonstrate inter-process communication using shared memory, where the producer writes and the consumer reads from a shared buffer.
- Implemented synchronization techniques and error handling for efficient memory management and robust process interaction.
- Gained hands-on experience with operating system concepts like process synchronization, shared memory.

Content based Movie Recommendation System

January 2021 – May 2021

- Concepts Used: Cosine Similarity Matrix, Pandas Library, and Content-Based Filtering Techniques. HTML, CSS and JavaScript for an interactive user interface.
- Data: Utilized real-world movie database (genres, cast, directors etc.) for model training and evaluation.
- Accuracy: Achieved 96% accuracy in recommending relevant movies based on user preferences.

ACTIVITIES AND HONOURS

Xenesis (LDRP – ITR), Event Coordinator

January 2019 – March 2021

- Planned and coordinated multiple technical and cultural events and led a team of 10+ members to organize workshops and competitions, attracting over 500 attendees and improving campus engagement.

BAPS Swaminarayan Sanstha (Sacramento), Volunteer

August 2022 – Present

- Worked as part of the Audio-Video and IT Team to manage technical setups during events and ensure smooth operations and high-quality technical support.