

KUNAL M.A.

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EDUCATION

Manipal University Jaipur

Bachelor of Technology in Information Technology

Expected July 2025

Jaipur, Rajasthan

- **Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Database Management, Computer Networks, Operating Systems, Data Science and Machine Learning, Predictive Analytics, Data Visualization Techniques, Introduction to Big Data

EXPERIENCE

Celebal Technologies

Summer Intern

Jun 2024 – Aug 2024

Remote

- Engaged in data pre-processing, feature engineering and model development on diverse real-world datasets, solving practical problems with machine learning techniques.
- Gained hands-on experience with industry-standard workflows and methodologies, enhancing the application of analytical skills in a dynamic, real-world environment.
- Developed and honed data analysis and visualization skills using Python libraries such as Matplotlib, NumPy, Pandas, and Seaborn to explore, manipulate, and present complex datasets effectively.

PROJECTS

Adaptive Traffic Signal Control System | *Python, Convolutional Neural Networks, Fuzzy Logic*

- Optimized traffic signal timings by integrating a CNN model for accurate traffic flow detection, improving the precision of traffic data collected.
- Utilized fuzzy logic for adaptive decision-making, creating a dynamic system that responds to real-time traffic conditions effectively.
- Developed a scalable and resource-efficient solution, ensuring the system remains lightweight and easily deployable on standard infrastructure.

Network Intrusion Detection System | *Python, Random Forest, Gradient Boosting, Ensemble Learning*

- Developed a high-performance IDS using an ensemble learning approach, integrating Random Forest, Gradient Boosting and Stacking to achieve 95.2% accuracy in detecting anomalies and reducing false positives.
- Performed advanced data pre-processing techniques, including feature encoding, outlier detection and model benchmarking based on performance metrics, to enhance data quality.
- Designed a real-time anomaly detection system for adaptability to emerging threats and potential integration into enterprise, IoT and cloud environments.

Polycon – Icon Pack Maker for Android | *Kotlin, Jetpack Compose*

- Developed a highly customizable Android tool for curating and generating personalized icon packs for their preferred Android launchers.
- Engineered a sleek, Material Design-inspired dashboard incorporating responsive UI elements whilst ensuring seamless integration and compatibility with a range of devices.
- Optimized application performance for a lightweight, user-friendly experience for all platforms.

TECHNICAL SKILLS

Languages:

C, C++, Java, Kotlin, Python, HTML, CSS, JavaScript, SQL

Frameworks:

React.js, Next.js, Electron, TensorFlow, Streamlit, Jetpack Compose

Technologies:

Node.js, MySQL, MongoDB, Docker, Git, Linux, Photoshop