

Kartik Maheshwari

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EXPERIENCE

IIT PATNA | SUMMER INTERN

May 2025 – July 2025

- Designed and implemented a Streamlit-based web application leveraging AI to automate and optimize exam seating allocation, enhancing efficiency for large-scale academic events.
- Developed algorithms for course-wise student distribution, dynamic buffer seat management, and sparse/dense seating configurations using predictive modeling and AI-driven logic.
- Engineered solutions for classroom clash detection, faculty movement optimization, and adaptive seating plans to maximize resource utilization during examinations.
- Generated comprehensive outputs such as master seating plans, unallocated lists, and auto-formatted attendance sheets compatible with Excel, integrating real-time data processing and reporting.

MNIT JAIPUR | RESEARCH INTERN

June 2025 – July 2025

- Generated synthetic wireless datasets using DeepMIMO (for zigzag indoor mobility) and NYUSIM (for mobile user propagation) to simulate realistic 5G channel conditions.
- Preprocessed the dataset to create a novel image-based dataset of amplitude and phase components for ML-driven channel prediction and zero-feedback beamforming.
- Optimized datasets for DL models like CNN, LSTM, and LFS-GAN targeting adversarially robust zero-feedback beamforming and future channel estimation under dynamic scenarios.
- Conducted exploratory research on Layer 3 and cross-layer attacks in 5G OAI-ORAN environments to evaluate the resilience of our custom SECSM agent.

PROJECTS

SWEAT OUT | ANDROID WORKOUT APP

Github

- Developed an engaging Android workout app to enhance user fitness experience.
- Integrated ExoPlayer for music playback and Coil for dynamic image rendering during workouts.

DOOMSTOP | PRODUCTIVITY APP

Github

- Built a productivity-focused Android app to reduce Doom-scrolling
- Implemented custom vibration patterns using VibrationManager API for intuitive user feedback.

RTSP VIEWER | RTSP STREAMING APP

Github

- Designed and developed a drone video streaming Android app with real-time RTSP streaming.
- Integrated VLC library to enable smooth and efficient RTSP video streaming.
- Utilized the RTSP protocol for the realtime streaming.

EDUCATION

RAJASTHAN TECHNICAL UNIVERSITY, KOTA

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE

Expected 2027 | Rajasthan, India

CGPA: 8.8 / 10

SKILLS

LANGUAGES

- Python
- C/C++
- Java
- Kotlin

TECHNOLOGIES

- Libraries and Frameworks
Jetpack Compose, NumPy, Pandas, Matplotlib, Scikit-Learn
- Android Development Tools
Retrofit, Hilt, Coil, Material Design, Android Sdk
- Platforms & tools
Vim, VS Code, GitHub, Linux(Kali), Android Studio
- Databases
Room, Firebase, Supabase, MongoDB, SQL

COURSEWORK

Data Structures
Operating Systems
Compiler Design
Computer Networks
Database Management System

ACHIEVEMENTS

- Executive Member | Innovation and Incubation Cell (E cell)
- Finalist | Shankara Global Hackathon
- Organizer | SAC-UTSAV 2025 (Cultural Fest)

LINKS

Github: [Kartik23411](#)

LinkedIn: [Kartik Maheshwari](#)

CERTIFICATIONS

Internship Certificates
Other Certificates