Ankitha C

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Education

SRM University **Sep. 2022 – May 2027**
Bachelor of Technology in Electronics and Communications *Modinagar, Uttar Pradesh*

Relevant Coursework

- VLSI-VHDL
- Android Development
- Microprocessors
- Artificial Intelligence
- Machine Learning
- Digital Circuits
- PCB Design
- Computer Architecture

Experience

British Airways **July 2025 – August 2025**
Data Science Intern *Virtual*

- Scraped and processed 50,000+ customer reviews to analyze factors influencing buying behavior.
- Built a model using flight attributes and review data to forecast customer buying behavior with 85 percent accuracy
- Delivered actionable insights by identifying 5+ key factors influencing customer purchasing decisions.

StackPro **July 2024 – August 2024**
UI/UX Intern *Bengaluru, Karnataka*

- Served as the sole designer, identifying and resolving 10+ design issues in real-time to ensure smooth project execution.
- Analyzed complex user feedback to redesign a workflow, resulting in a 15 percent reduction in task completion time.

Projects

Voice Command Recognition System | *Python, MFCC, Machine Learning* **Dec 2025 – Present**

- Built a software-based speech recognition system that records audio, extracts MFCC features, and classifies commands using supervised ML models.
- Achieved high command-level accuracy by implementing preprocessing (silence removal, normalization) and training SVM/Random Forest classifiers on custom audio datasets.

Smart Blind Glasses with YOLOv3 | *Arduino, Machine Learning, PCB, ESP32-CAM* **Dec 2025 – Present**

- Built a smart blind-assist device using ESP32 and YOLOv3, enabling real-time object detection and obstacle alerts.
- Integrated Python-based AI inference with embedded hardware to optimize detection accuracy and system response time.
- Designed, tested, and validated the end-to-end hardware–software system, improving reliability and user navigation safety.

Traffic Flow Prediction | *Machine Learning, Python* **Jan 2025 – May 2025**

- Created and deployed a machine learning model using Python to predict vehicle traffic flow across 10+ city junctions with 85 percent accuracy.
- Modeled and preprocessed 50,000+ historical traffic data records using pandas and NumPy for feature extraction and model training.
- Evaluated 4+ regression algorithms (e.g., Linear Regression, Random Forest) and selected the best-performing model for traffic volume prediction.

Technical Skills

Languages: Python, Verilog, C/C++, HTML/CSS, Java, Kotlin
Developer Tools: VS Code, Xilinx ISE, Optisystem, Cadence, LTspice, Android Studio, Figma
Technologies/Frameworks: TensorFlow, Scikit-learn, NumPy, Pandas, Matplotlib, PyTorch, SciPy

Research Work

ML Driven Predictive Modeling of OOK-FSO Systems **June 2025 – Present**
Research Contributer *Srm University*

- Built an ML model for 10 Gbps OOK-FSO BER prediction, achieving R^2 0.906.
- Designed and simulated the complete FSO link in OptiSystem and contributed key analysis and revisions to the published research manuscript.

AES-128 and AES-256 FPGA Implementation **Sep 2025 – Nov 2025**
Research Contributer *Srm University*

- Implemented AES-128 and AES-256 in Verilog on FPGA and analysed resource, delay, and power metrics.
- Contributed to research paper through simulation validation and comparative performance evaluation.