

# MUHAMMAD UMAR YAKSMABI

ML Enthusiast | Software Engineer

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## EDUCATION

BE | Computer Science & Engineering (Data Sciences) | RV College Of Engineering, Bengaluru CGPA: 8.98 Expected Sep 2027  
PRE UNIVERSITY | Narayana PU College PCMC Percentage: 98.75% 2021 – 2023

## PROFESSIONAL EXPERIENCE

**PROJECT INTERN** | Wirin (Wipro IISc Innovation Network) Project | RVCE, Bengaluru, KA Apr 2024 – Dec 2024

Internship in autonomous vehicle technology, focusing on app development, UI/UX design, backend integration, and AI-driven assistance.

- Developed a cross-platform app for WiPod autonomous car to enhance user interaction and control, and assisted in backend development involving real-time data processing and API integration.
- Contributed to chatbot development for the autonomous car's drive assistant using natural language models, including fine-tuning Llama3 60B for regional languages with 75% accuracy.

**PRISM INTERN** | Samsung R&D Institute | Bengaluru, KA May 2025 – present

Working on advanced computer graphics techniques including Gaussian splatting for 3D scene rendering and enhancement, contributing to innovative visual effects through cutting-edge methods.

## PROJECTS

[Adaptive Defenses for Wireless IOT Networks](#) Python, Game Theory, Q-Learning

Developed and simulated dynamic defense strategies for IoT networks using game-theoretic models and Q-learning to counter jamming attacks, achieving a 7% performance improvement over static approaches.

[Federated learning with DP for personalized healthcare recommendations](#) Flwr, TensorFlow Federated, PyTorch, Llama 7B Quant

Engineered a privacy-preserving healthcare chatbot that securely retains patient medical history locally, integrating federated learning and differential privacy to continuously enhance the global model.

[Resilient Communication Framework for Disaster using ESP NOW and Mobile Relay Systems](#) Embedded C, ESP32

Designed an ESP32-based opportunistic mesh and mobile relay system for disaster-resilient communication without reliance on the internet or Bluetooth, integrating 5 sensors for proactive disaster prediction.

[Invisibility Cloak](#) OpenCV, YOLO, Python

Implemented a computer vision system that captures the static background and overlays it on objects covered with a cloak, creating an invisibility illusion.

## TECHNICAL SKILLS

Programming Languages: Python, C++, Embedded C, SQL, JavaScript, R

Frameworks & Libraries: TensorFlow, PyTorch, LangChain, OpenCV, YOLO, FastAPI, Flask, Flutter, Pandas, NumPy, Streamlit

Tools: Git, GitHub, Supabase, Firebase, Android Studio, Linux, Figma

## SOCIETIES

**JR CORE MEMBER** | The Coding Club Of RVCE, Bengaluru Feb 2025 – present

Organized coding events and workshops, mentored juniors in C++, Python, and ML, and contributed to real-world projects.

Conducted workshops on APIs, LLMs, and competitive programming at RVITM and for freshmen at RVCE.

**CLUB REPRESENTATIVE** | Rotaract Club Of RVCE, Bengaluru Oct 2023 – present

Coordinated initiatives like the Alzheimer's Awareness Walkathon and Fistful, a food distribution project for the needy.

## CERTIFICATIONS

**DATA SCIENCE FOR ENGINEERS**

NPTEL

Comprehensive training in R programming, statistics, and linear algebra. Gold certification with Top 5%ile rank.

**MACHINE LEARNING SPECIALIZATION**

Sanford University & DeepLearning.AI

Practical, hands-on exposure to supervised and unsupervised learning techniques, deep learning, and real-world ML applications.

**CS50X**

Harvard University

Explored algorithms, data structures, memory management, and web development using C, Python, and SQL.