

# Prakash Aryan

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GitHub | LinkedIn

## Education

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**Master of Engineering in Software Systems** 2023–Present  
Birla Institute of Technology and Science, Dubai, UAE

**Bachelor of Technology in Computer Engineering** 2019–2023  
Poornima University, Jaipur, India  
Specialization in Artificial Intelligence

## Professional Experience

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**Cross Department Funded Research Project Intern** Sep 2023–Present  
BITS Pilani Dubai Campus, Dubai, UAE

- Utilized Unity for simulating robot behaviors and testing various scenarios.
- Built VR and MR apps using Unity and tested simulations in MetQuest 3 headset.

**Unity Developer Intern** Jun 2024–Aug 2024  
Sparkslab Technology, Dubai, UAE

- Created Face MoCap system using Python, Computer Vision, and Mediapipe for Unity integration.
- Implemented AI Avatar Chatbot with LLMs and Unity, featuring RPM avatars.
- Developed Arabic text-to-speech chatbot using LLMs, ElevenLabs API, and Unity.

**Software Developer** Apr 2024–Jul 2024  
Al Ghwasa Technical Equipment Trading LLC, Dubai, UAE

- Built Python-based cost estimation tool to automate sales pipeline and rectify human-made errors in calculations.
- Implemented email parsing functionality for data extraction and processing.
- Developed employee performance tracking system to monitor and analyze productivity metrics.

**Teaching Assistant (Lab)** Sep 2023–Jun 2024  
BITS Pilani Dubai Campus, Dubai, UAE

- Provided guidance and support to undergraduate students in understanding computer architecture concepts.
- Taught in additional labs such as Computer Networks, Data Structures and Algorithms (DSA), and Database Systems.

**Vice President, Linux Users Group** Aug 2023–Jun 2024  
BITS Pilani Dubai Campus, Dubai, UAE

- Organized and conducted two workshops aimed at educating undergraduate students about Linux and open-source software, fostering their technical skills and knowledge.

- Provided assistance and support to PhD scholars in leveraging Linux and open-source tools for their research projects.

### **Data Engineer Intern**

Apr 2022–May 2023

Biztech Analytics, New Delhi, India

- Designed and developed ETL (Extract, Transform, Load) pipelines for diverse client projects.
- Used Apache Spark for scalable and high-performance data processing.
- Utilized Apache Airflow for workflow orchestration and scheduling of ETL tasks.

### **Software Development Intern**

May 2021–Jul 2021

Madehome Developers, Remote

- Developed backend functionalities for a web application using Python and Flask framework.
- Implemented a form to handle user requests efficiently.
- Connected the application to a database for storing user requests securely.

## **Skills**

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**Programming Languages:** C/C++, C# (WPF), Python, JavaScript, TypeScript

**Web Technologies:** React, Next.js, Node.js

**Machine Learning & AI:** Machine Learning, Deep Learning, Generative AI, Stable Diffusion, Large Language Models, Natural Language Processing, Computer Vision

**Frameworks & Libraries:** PyTorch, llama.cpp, GGUF, QLoRA

**Extended Reality:** XR and Unity

**Databases:** SQL (MySQL, PostgreSQL), NoSQL (MongoDB, Redis), Vector Database (Chroma DB)

**DevOps & Tools:** Docker, Git, GitHub

**Operating Systems:** Linux (Ubuntu and Arch Linux)

**Robotics:** Robot Operating System (ROS)

## **Projects**

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1. Indian Penal Code Recognition Using Multiclass Classification Algorithms
2. Machine Learning algorithms to predict liver cirrhosis and its stage
3. LegalMind: Legal Advisory with Large Language Models
4. MediXAI: AI-Based Medication Exploration
5. Viewaze: Deep Learning System for Eye Tracking
6. XR Robotics Simulation in Metaquest3 using Unity and ROS2
7. Building Cloud Storage: QEMU/KVM, TrueNAS, and Nextcloud Integration

## **Languages**

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English (Fluent), Hindi (Native)

## **Interests**

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Reading, Cooking, Hiking, Star Wars, Puzzles and Legos, Geocaching