RAJARAPOLLU RUJUL ROHIT

B.Tech. - Electronics and Telecommunication Engineering

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BRIEF SUMMARY

I am an Electronics and Telecommunication Engineering student passionate about designing and developing innovative electronic systems that bridge hardware and software. My areas of interest include embedded systems, VLSI design, IoT, and communication networks. Through academic projects and internships, I have gained practical experience with MATLAB, Arduino, STM32 microcontrollers, and communication simulation in Simulink. I aim to work in a forward-looking organization where I can apply my technical knowledge, continue learning about emerging technologies such as 5G, AI in communication systems, and contribute to building efficient, reliable, and scalable electronic solutions. I look forward to growing as an engineer while adding value to the organization's innovation-driven goals.

KEY EXPERTISE

C Programming | C++ Programming | Python Programming | Javascript

EDUCATION

MIT Academy of Engineering, Pune 2023 - 2027
B.Tech. - Electronics and Telecommunication Engineering | CGPA: **8.06** / **10**

S.V. Union Junior College, Pune 2023
12th | HSC | Percentage: **64.83** / **100**

S.V.UNION High School, Pune 2021
10th | SSC | Percentage: **87.20** / **100**

INTERNSHIPS

IBM | IT / Computers - Software 29 May, 2025 - 25 Jul, 2025
Self Paced
Rujul Rohit Rajarapollu earned the Artificial Intelligence Fundamentals certificate from IBM SkillsBuild, issued on June 22, 2025. This credential certifies foundational knowledge in Artificial Intelligence (AI), its core concepts, and practical applications.

The training explored essential areas such as:

AI Basics: Introduction to AI, its evolution, and significance in modern industries.

Machine Learning Overview: Understanding types of learning (supervised, unsupervised, reinforcement) and model-building principles.

Data and Algorithms: Role of data in AI, basic algorithmic approaches, and ethical AI considerations.

Applications of AI: Real-world use cases including virtual assistants, chatbots, recommendation systems, and AI in healthcare, finance, and logistics.

Ethics and AI: Understanding fairness, accountability, and transparency in AI systems.

The course was structured to help learners build a strong theoretical foundation while also understanding the implications of deploying AI responsibly.

Issued By: IBM SkillsBuild
Issue Date: June 22, 2025
Verification Link: Verify Credential

This certification demonstrates Rujul's commitment to emerging technologies and readiness to engage in AI-related projects with a responsible and foundational understanding of the field.

internshala | IT / Computers - Software 07 Jun, 2024 - 07 Jul, 2024
Self Paced
Rujul Rajarapollu, a student from MIT Academy of Engineering, Alandi, Pune, successfully completed a 6-week online training program on Programming with Python offered by Internshala. This comprehensive training was designed to build a strong foundation in Python and its practical applications across various domains.

The course curriculum covered the following modules:

Introduction to Python: Basic understanding of Python programming language, its features, and setting up the environment.

Using Variables in Python: Handling data through variables, data types, and type conversions.

Basics of Programming in Python: Control structures like loops and conditionals, functions, and error handling techniques.

Principles of Object-Oriented Programming (OOP): Understanding core OOP concepts such as classes, objects, inheritance, and encapsulation in Python.

Connecting to SQLite Database: Introduction to SQL and using Python libraries to create and manage databases.

Developing a GUI with PyQT: Hands-on practice to build interactive desktop applications using PyQT.

Application of Python in Various Disciplines: Insights into how Python is used in domains like data science, automation, and web development.

Final Project: A capstone project integrating all the concepts learned during the training.

AI in Programming with Python: Introduction to how Python powers Artificial Intelligence applications.

Rujul scored an impressive 93% in the final assessment and was recognized as a top performer in the training batch.

Certification Date: July 4, 2024
Certificate Number: hqe0d9x7c7k
Issued By: Internshala Trainings
Verification Link: Verify Certificate

This certification validates Rujul's proficiency in Python programming and his ability to apply it in real-world scenarios, including GUI design and database connectivity.

PROJECTS

Smart Traffic management System

19 Aug, 2024 - 08 May, 2025

Mentor: Ms Nutan Bansode | **Team Size:** 4

Key Skills: Python (open CV)

Project Description: Smart Traffic Management System using OpenCV

The Smart Traffic Management System using OpenCV is an intelligent vision-based solution designed to optimize traffic flow and reduce congestion at intersections. Leveraging computer vision techniques, this system monitors real-time traffic density and dynamically controls traffic signals to improve efficiency and reduce waiting time for vehicles.

Key Features:
Real-Time Traffic Detection: The system captures live video feeds from traffic cameras and processes the footage using OpenCV, a powerful open-source computer vision library.

Vehicle Counting and Density Estimation: It uses object detection algorithms (like background subtraction, contour detection, or pre-trained deep learning models such as YOLO or Haar cascades) to count vehicles in each lane and determine traffic density.

Dynamic Signal Timing: Based on the vehicle count, the system allocates green light duration adaptively, giving more time to lanes with heavier traffic and minimizing idle time at intersections.

Emergency Vehicle Detection (Optional): Advanced implementations may include detecting sirens or specialized vehicle shapes to prioritize emergency vehicles like ambulances or fire trucks.

Scalability: The solution can be expanded across multiple intersections in a city, integrated with existing traffic control infrastructure.

Technologies Used:
OpenCV: For image processing, object detection, and frame analysis.

Python: As the programming language for implementation.

Camera/Video Feeds: As input sources for real-time data.

(Optional) Deep Learning Models: Such as YOLOv5 or MobileNet SSD for enhanced vehicle recognition and classification.

Benefits:
Reduces traffic congestion and travel time.

Enhances road safety by regulating traffic efficiently.

Minimizes fuel consumption and emissions by reducing vehicle idling.

Can be integrated into smart city frameworks for urban planning.

Project Outcome:
The system demonstrates how AI and computer vision can be applied to real-world problems like urban traffic congestion. It showcases skills in Python programming, OpenCV, object detection, and automation, making it a valuable portfolio project for careers in AI, computer vision, or smart city development.

ASSESSMENTS / CERTIFICATIONS

Python Essential 1

ssued By: Cisco Networking Academy
Issue Date: March 19, 2024

Rujul Rohit Rajarapollu completed the "Python Essentials 1" course, a foundational-level program under the Cisco Networking Academy. The course introduced Python syntax, data types, conditionals, loops, functions, and basic error handling. It was aligned with the PCAP (Certified Associate in Python Programming) standards and aimed to build essential Python programming skills.
Credential Platform: Cisco / OpenEDG Python Institute

Python Essential 2

Issued By: Cisco Networking Academy
Issue Date: April 12, 2024

Rujul Rohit Rajarapollu completed the "Python Essentials 2" course, which is an intermediate-level continuation of Python Essentials 1. The training included advanced topics such as file handling, modules, object-oriented programming, error handling, and Python standard libraries. It prepares learners for higher-level Python certifications and real-world programming applications.
Credential Platform: Cisco / OpenEDG Python Institute

Digital 101 – NASSCOM IT-ITeS Sector Skills Council

Issued By: NASSCOM SSC (with Government Approval)
Issue Date: July 6, 2024
Certification ID: FSP/2024/7/10177513

Rujul Rajarapollu completed the "Digital 101 – 30 Hours" assessment, aligned with NSQF Level 5 standards, certified by NASSCOM in collaboration with industry and approved by the Government. The course included modules on digital literacy, workplace digital tools, and basic IT knowledge. Rujul achieved Gold category, scoring 71% overall.

M001: 65.62%

M002: 68.75%

M003: 85%
This certification reflects Rujul's competence in fundamental digital skills essential for IT-ITeS roles.
Category Achieved: Gold (≥70%)

JAVA Programming

Issued By: Great Learning Academy
Issue Date: January 2025

Rujul R. Rajarapollu successfully completed the "Java Programming" online course offered by Great Learning Academy. The course focused on core Java concepts, including object-oriented programming, data types, control structures, functions, classes, inheritance, and exception handling. It also introduced Java's application in real-world problem-solving scenarios and software development.
Certificate Authority: Harish K. Subramanian, Academic Director
Credential Type: Certificate of Completion

PERSONAL INTERESTS / HOBBIES

- Programming and software development

IMs

- WhatsApp - 9067277405

PERSONAL DETAILS

Gender: Male
Marital Status: Single
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Date of Birth: 02 Apr, 2005
Known Languages: English , German , Hindi , Marathi
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REFERENCES

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