

Tushar Paul

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EDUCATION

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

B.Tech. in Electronics
& Communication
June 2024 | Solan, HP
CGPA : 8.18/10

ST. MARY'S CONVENT INTER COLLEGE

ICSE Class XII
May 2020 | Lucknow, UP
ICSE board : 88%
ISC board : 82.5%

LINKS

LinkedIn:
<https://www.linkedin.com/in/tusharpaul2001/>
 GitHub:
<https://github.com/TusharPaul01>
 LeetCode:
https://leetcode.com/TusharPaul_07/

COURSEWORK

UNDERGRADUATE

Data Structures Algorithms
Computer Network
Database Management
Object Oriented Programming
Digital Electronics
Data Analysis
Machine Learning

SKILLS

LANGUAGES

Java, Python, SQL, Verilog,
MATLAB, Embedded C

TOOLS

MS PowerBi, Colab, MonsterAPI
Sagemaker, Replit, VSCode, Excel

OTHER

Internet of Things, ThingSpeak,
TensorFlow, Scikit-learn, PyTorch,
OpenCV, NLP, GitHub, AWS, Flask

ORGANIZATIONS

- IEEE Member (Delhi Section)
- Core team leader of Unnat Bharat Abhiyan JUIT

ACHIEVEMENTS

August 2022	Top 10 Position	IIT Ropar (i-HUB Awadh) Competition
August 2022	1 st Position	Debate Competition ICC JUIT
September 2022	2 nd Position	Research & Development Competition
November 2022	1 st Position	IEEE Hackathon JUIT
March 2023	2 nd Position	Hackathon Techkriti IIT Kanpur

EXPERIENCE

MACHINE LEARNING INTERN | Kusho

September 2023 – November 2023 | California, USA

- Implemented Large Language Model (LLM) like LLaMA-7B & GPT
- Fine-tuned the LLM model over own dataset and automated API testing
- Created the dataset, built API's using Flask and developed interface

IoT & AI/ML DEVELOPER INTERN | P2L Private Limited

March 2023 – May 2023 | New Delhi, India

- A water analyser for industrial use was created using RaspberryPi & sensors
- SVM, Random Forest & ensemble models were applied to the recorded data
- The results were displayed on a web app with an accuracy of 97.12%

RESEARCH INTERN | IIT Ropar

June 2022 – August 2022 | Ropar, India

- Built digital twin of IoT enabled smart crop irrigation system
- Utilized Tinkercad for designing and simulating the model
- Crop suggestions are provided to farmers using machine learning techniques
- Crop production, farmer profit & income analysis using seaborn library

SUMMER TRAINING | RDSO Indian Railways

May 2022 – July 2022 | Lucknow, UP

- Signalling & telecommunication system of Indian Railways
- Explored optical and gate communication technologies
- Block signalling system, info & automation system for train traffic control

PUBLICATIONS

“Real Time Monitoring of Water Quality: A Machine Learning & IoT Approach”

Co-authored with P. Garg, R. Raj, S. Jain
Published in *4th International Conference on Intelligent Engineering and Management (ICIEM 2023)*, Amity University, London, UK (IEEE United Kingdom & Ireland Section).

PROJECTS

Early Warning Landslide Detection | IoT + Embedded C + ML

September 2022 – January 2023

- Using the internet of things to collect data & transmit it to ThingSpeak cloud
- Used micro-controllers - ESP32, Arduino & sensors - DHT22, gyroscope, etc.
- SVM, RF & XG Boost model implemented for classification & estimation
- Alerts on the web app & insights created using Matplotlib on real-time basis

University Chatbot | ML + Web Interfacing + AWS

May 2023 – Present

- Developed a LSTM neural network-based chatbot using Python Keras library
- Implemented web application for interaction & model deployed on AWS
- Live on our university's official website and used by over 2500 students & website users.