



ABHINAV SINGH

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B.Tech, Computer Science and Engineering - Software Engineering
Address : RUCHI PG, NEAR TRS HOSTEL, Kattankulathur, Kanchipuram, Tamil Nadu

Education

Gurugram Public School. Gurugram, Haryana	2018
Class X - CBSE · PCM/CBSE · Gurugram	90.25%
Kendriya Vidhyalaya, Gurugram, Haryana	2020
Class XII - CBSE · PCM · GURUGRAM	84%
SRM IST-Kattankulathur	2026
B.Tech · Computer Science and Engineering - Software Engineering	8.82/10

Experience

RD INFRO TECHNOLOGY Link	May 2023 - Nov 2023
C++ · Intern	Chennai
Studio FOV Link	Sep 2024 - Nov 2024
Exclusive Executive Intern · Intern	Delhi

Projects

Pneumonia Detection using Deep Learning (CNN & Transfer Learning)	Dec 2024 - Feb 2025
· Python, Pandas, NumPy, TensorFlow, Keras, OpenCV, Flask, Google Colab	Deep Learning
Developed a real-time pneumonia detection model using CNNs and Transfer Learning on chest X-ray images. Preprocessed data using OpenCV; trained and validated models using TensorFlow/Keras with GPU acceleration on Google Colab. Achieved high precision in medical image classification; enhanced decision-making through data-driven insights and testing. Built and deployed a user-friendly web interface using Flask for local testing of predictions.	
Epidemic Prediction System – Nipah Virus Risk Index Mapper	Mar 2025 - May 2025
SRM Institute of Science and Technology · Python, Pandas, JSON, K-Means	Public Health Analytics, Data Science
Clustering, Matplotlib, Flask, Excel, Geo-mapping	
Developed a web-based state-level risk prediction system for Nipah virus outbreaks in India, integrating six key risk parameters: bat density, pig farming, fruit consumption, population density, healthcare accessibility, and environmental degradation. Applied K-Means clustering (k=4) for segmenting Indian states into four distinct risk profiles. Created a simulation model with real-time dashboard and dynamic heatmaps for interactive visualization of risk scores using choropleth maps.	

Awards

Best Innovation Award – Smart Waste Management System Link	Nov 2022
Techknow 2022-2023 · Department of Physics and Nanotechnology, SRM Institute of Science and Technology	

Certifications

NPTEL - Data Mining Link	Mar 2025
IIT Madras	
Oracle Cloud Infrastructure 2023 Certified Foundations Link	Jan 2025
Cisco Networking Academy - Introduction to Data Science Link	Oct 2024
IBM Cognitive Class - Python for Data Science Link	Jan 2025

Volunteering

Savya Sanchi Rural and Urban Development Centre | [Link](#)

Jan 2024 - May 2024

Volunteer · Community Development

Engaged in a rural outreach program organized by Savya Sanchi NGO, where I contributed to awareness drives in tribal villages across Seoni district, Madhya Pradesh. Conducted door-to-door and group-level sessions on education, healthcare, and central government development schemes, directly impacting community understanding and participation.

Competitions and Key Achievements

- National Defence Academy (NDA) Written Examination**
- Jan 2020
- Qualified in the national-level defence entrance exam
- Indian Army Technical Entry Scheme (TES)**
- Jan 2021
- Successfully cleared the Army TES entry eligibility process for technical officers
- Build with India Hackathon** | [Link](#)
- May 2024
- Selected among top innovative tech projects for national-level participation 2024
- Smart India Hackathon (SIH)**
- Feb 2024
- Shortlisted by college panel to represent institution at the national level

Technical Skills

Languages and Frameworks: React.js, Node.js, Express.js, Flutter, React Native, HTML, CSS, JavaScript, REST APIs, UI/UX Design

Programming Languages: C++, JavaScript, Python, Java

Tools and Technologies: Git, GitHub, Jupyter Notebook, Google Colab, VS Code, Anaconda

Domain Knowledge: Software Engineering, Software Quality Management, Neural Networks, LSTM, HMM, BERT, VADER, MongoDB, Firebase, SQLite, AWS, Google Cloud, GitHub Pages, Vercel

Design and Simulation Tools: TensorFlow, Keras, scikit-learn, OpenCV, Matplotlib, Seaborn

Technical Skills: Microservices, Event-Driven Systems, REST APIs, UI/UX Design, Agile Planning, Project Management

Languages

English [Professional Working Proficiency], Hindi [Native Proficiency], German [Fundamental Proficiency]

Tech Profiles

[LinkedIn](#), [GitHub](#), [LeetCode](#)