

Utkarsh Singh

+91 6387463741 utkarshsingh@vitbhopal.ac.in github.com/utk1725 linkedin.com/in/utkarsh-singh-5a4167252

EDUCATION

VIT Bhopal University, Bhopal, MP

Expected May 2026

B.Tech in Computer Science Core Engineering

GPA: 8.38/10

Maharshi Patanjali Vidya Mandir, Prayagraj, UP

12th CBSE: 92.4%

June 2021

10th CBSE: 94.4%

July 2019

PROJECTS

Chickpea Anomaly Detection using YOLOv5

Aug 2023 – Nov 2023

- Engineered a YOLOv5 deep learning pipeline trained on 20,000+ annotated images to classify chickpeas into 7 quality grades.
- Attained 96.4% accuracy, streamlining defect identification and improving quality control by 40%.
- Devised efficient preprocessing using OpenCV and PyTorch, cutting training time by 25%.
- Visualized learning curves and performance metrics with TensorBoard and Matplotlib for iterative model refinement.
- Strategized future deployment using Flask API and Android integration to enable real-time classification on the field.

Toxic Tweets Classification using NLP

Jan 2024 – Apr 2024

- Developed and deployed a Naive Bayes NLP classifier on 53,000+ tweets, reaching 94% classification accuracy.
- Executed advanced preprocessing (TF-IDF, lemmatization) to optimize feature space and enhance signal clarity.
- Elevated toxic content recall by 18% through parameter tuning and false-positive analysis.
- Launched a responsive Streamlit interface, reducing moderation workload by 60% for social media comments.
- Integrated REST APIs to extend model use to Twitter, Instagram, and YouTube in future iterations.

EXPERIENCE & EXTRACURRICULAR

Fintech Club, VIT Bhopal

Jan 2023 – June 2023

Core Member – Event Management and Tech Team

- Spearheaded the planning and execution of 4 large-scale technical events, engaging over 800 students and 20+ industry speakers.
- Orchestrated HackExchange (Hackathon) with a 10-member team, driving 60% higher turnout than the previous edition.
- Streamlined operations and logistics, trimming event setup time by 30% through proactive coordination.
- Amplified event outreach via targeted social media campaigns, increasing registrations by 45%.

TECHNICAL SKILLS

Programming Languages: Python, C++, C

ML & AI: Supervised/Unsupervised Learning, Deep Learning, Neural Networks, SVM, NLP, NumPy, Pandas, PyTorch, OpenCV, Matplotlib, Seaborn

Web Development: HTML5, CSS, JS, Express, Node.js, MySQL, MongoDB, Bootstrap, APIs, Postman

Tools/Platforms: Jupyter, Git, VS Code, Visual Studio, MongoDB Compass, MetaMask

Version Control: Git, GitHub

Soft Skills: Team leadership, project execution, technical communication

CERTIFICATIONS

- IBM Blockchain Developer**
- IBM AI Engineering** – 6 Courses (Coursera), Dec 2023
- NLP Certification** – Great Learning
- Cloud Computing** – IIT Kharagpur, Apr 2024

SUMMARY

Results-driven Computer Science undergraduate with a solid foundation in AI, deep learning, and software engineering. Demonstrated ability to build impactful real-world solutions and lead technical initiatives in collaborative environments. Adept at translating complex problems into scalable models and applications. Eager to contribute to cutting-edge innovations and drive digital transformation.