Dheeraj R Singh

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Silvassa, Dadra & Nagar Haveli, India

PROFESSIONAL SUMMARY

Analytical Python Developer and Data Scientist with expertise in Machine Learning, Deep Learning, NLP, and Generative AI. Proven experience building real-time AI systems including Sign Language Detection using CNNs, OpenCV, and TensorFlow. Strong foundation in Python, Flask, MySQL, Power BI, and Big Data technologies. Certified by IIT Kanpur and trained in industrial AI/ML practices. Passionate about leveraging data-driven solutions to solve complex problems.

TECHNICAL SKILLS

Languages: Python, SQL, HTML, CSS, C
Machine Learning/AI: Machine Learning, Deep Learning, NLP, Generative AI, Computer Vision, CNNs
Frameworks & Libraries: TensorFlow, OpenCV, Flask, Scikit-learn, Pandas, NumPy, Matplotlib
Tools & Technologies: MySQL, Power BI, Git, GitHub, Google Sheets, Big Data
Core Competencies: Data Science, Neural Networks, Image Processing, Model Training, Problem Solving

EXPERIENCE

Data Science & AI/ML Project Intern   Oct 2021 – Nov 2021
Geekslab Technologies Pvt. Ltd.   *New Delhi, India*

- Developed Face Recognition system using Python, OpenCV, and Deep Learning to identify individuals based on facial features
- Implemented end-to-end ML pipeline including data scraping, image preprocessing, and neural network architecture design
- Trained and optimized Convolutional Neural Networks (CNNs) achieving high accuracy in face detection and recognition
- Applied transfer learning and feature extraction techniques to improve model performance and reduce training time

Project Intern   Sep 2021 – Oct 2021
Prutor@IITK (IIT Kanpur)   *Kanpur, India*

- Designed and compiled standardized question bank sets for computer science college programs
- Leveraged Google Sheets for documentation, quality assurance, and delivery of educational content

Campus Ambassador   Jun 2023 – Jul 2024
PW (PhysicsWallah)   *Kanpur, India*

- Represented PhysicsWallah brand on campus, promoting educational programs and increasing student engagement
- Coordinated marketing initiatives and built community relationships to drive program awareness

PROJECTS

Real-Time Sign Language Detection System | *Python, OpenCV, TensorFlow, CNNs*   2024

- Built end-to-end real-time gesture recognition system to translate hand signs into text using computer vision
- Designed and trained CNN architecture for accurate gesture classification with webcam integration
- Implemented image preprocessing pipeline and real-time frame processing for low-latency detection
- Created user-friendly interface enabling seamless communication accessibility for hearing-impaired individuals

Text Summarizer using T5-small | *Python, Pandas, NLP*   2025

- Built a text summarization application using T5-small transformer model to generate concise summaries from long-form text
- Processed and cleaned large text datasets using Python, Pandas, and NLP pipelines for model training and evaluation
- Fine-tuned a Hugging Face T5-small model on domain-specific data to improve summary quality and relevance

EDUCATION

Dr. A.P.J. Abdul Kalam Technical University   Nov 2020 – Aug 2024
Bachelor of Technology in Computer Science and Engineering   *CGPA: 8.58*
  - Indus Institute of Technology & Management, Kanpur

Central Board of Secondary Education (CBSE)
Shiv Prakash Memorial School, Silvassa, D & NH   *Mar 2017 – Mar 2019*
  - 12th— CGPA: 6.6
  - 10th— CGPA: 9.0

CERTIFICATIONS

Problem Solving through Programming in C – IIT kharagpur
Python Programming - A Practical Approach – ICT Academy, IIT Kanpur
Data Science Masters 2.0 (IMPACT 2.0) – PW Skills
Data Science Bootcamp 2023 – 365 Careers
Data Science: AI & ML using Python – Geekslab Technologies

HONORS & AWARDS

1st Position – Essay Writing Competition, IITM Bilhaur Cultural Committee
1st Position – Debate Competition (Team Lead), IITM Bilhaur Cultural Committee
3rd Position – Speech Competition, IITM Bilhaur Cultural Committee