# DHRUVIL JOSHI

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## EDUCATION

**Indiana University – Bloomington** **Aug 2024 – May 2026**
*Masters of Science in Data Science* *CGPA – 3.6*

**DY Patil College of Engineering – Pune** **Jun 2020 – May 2024**
*Bachelor of Engineering in Artificial Intelligence & Data Science* *CGPA – 9.48*

***Coursework:*** Machine Learning, Statistics, Computer Vision, Database Technologies, Data Structures & Algorithms, Discrete Mathematics, Object Oriented Programming, Database Management System, Cloud Computing.

## EXPERIENCE

**Tata Technologies |** *Python, OOP, TensorFlow, Computer Vision, Data Augmentatidon* **Mar 2023 – May 2023**
Data Science Intern *Pune, India*

- Engineered a spare part recommendation system using computer vision techniques that reduced manual search time and improved suggestion accuracy by 35%.
- Increased model accuracy by 20% by implementing data augmentation techniques and data annotation, expanding the training dataset by 3X.
- Automated data preprocessing and file management with Python scripts, reducing manual effort by 50% and decreasing processing time.
- Created documentation and detailed process flows to support cross functional team collaboration.

## PROJECTS

**X-ray Report Generation Assistance |** *Python, TensorFlow, Computer Vision, Neural Networks* **Jan 2024 - May 2024**

- Collaborated in a team to develop an AI-driven preliminary X-ray report generation system utilizing a pre-trained Vision Transformer (ViT) encoder and GPT-2 decoder for automated medical reporting.
- Integrated Python backend API with Node.js front-end via FastAPI, ensuring connection between the AI model and UI.
- Demonstrated promising results, showing potential to streamline reporting with faster generation times by up to 2x times.

**Student Test Score Predictor |** *Python, Scikit-learn, MySQL, Flask, AWS, git* **May 2024 – Jul 2024**

- Developed end-to-end ML pipeline using Python, extracting data from MySQL database to identify student performance patterns.
- Implemented multiple regression techniques with hyperparameter tuning, achieving 91% accuracy with XGBoost.
- Created Power BI dashboard visualizing feature importance and data correlations for educational decision support.
- Deployed Flask web app on AWS that predicts student math scores based on 8 key factors.

**Cold Email Generator |** *Gen- Ai, LLM, ChromaDB, Open-source Llama 3.1, Streamlit* **Jan 2025 – Feb 2025**

- Developed an AI-powered cold email generator using Llama 3.1 generative model that increased job application response rates by 80% through automatically personalized outreach based on job descriptions.
- Integrated ChromaDB vector database to enhance email personalization by retrieving relevant information matches.

## SKILLS

- **Languages**: Python (Pandas, Numpy, Matplotlib, Plotly, Seaborn, TensorFlow, Pytorch, Sklearn, OpenCV, Pillow, NLTK, Flask, Selenium, Beautiful Soup, Streamlit), JavaScript, C, C++, HTML, CSS, SQL, R
- **Technical Skills**: Machine Learning, Deep Learning (Neural Networks, CNNs, Transformers), Computer Vision, LLMs
- **Miscellaneous**: Docker, Git, GiHub, Linux, Bash, AWS, Power BI, MS Office (Word, Excel, PowerPoint)

## CERTIFICATIONS

- Machine Learning Specialization (Coursera)
- 100 Days of Code - Python Bootcamp (Udemy)
- Deep Learning Specialization (Coursera)
- Docker: Containerization for Development (Codedamn)