# Priyanshu Rajput

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**Linkedin** | **GitHub**

## Education

**IITM** — Chennai
B.S. in Data Science and Application — Jan 2021 - Dec 2024
*CGPA: 7.1*

**CSJMU** — Kanpur
Mathematics B.Sc. — July 2019 - July 2022
*Percentage: 61%*

## Experience

**Itech India | ML Engineer Trainee** — Chennai, India | Dec 2023 - Present

- Spearheaded the development of table detection, text detection, and text recognition techniques for CAD documents.
- Managed and processed a large dataset of CAD documents in PostgreSQL, including batch processing and long-term maintenance.
- Fine tuning custom LLM model based on business requirements .
- Enhance the performance of the code by implementing optimizations using CUDA and C++ within the pipeline.
- Working on statistical techniques, including regression analysis, hypothesis testing, and model validation.
- Using technique like hypothesis testing, Bayesian inference, A/B testing, confusion Matix and other statistical methodologies.
- Highly optimized DWG conversion as PDF and PNG formats.

**Itech india | ML Intern** — Chennai, India | June 2023 - Nov 2023

- Identified key regions of interest within each file and consolidated findings for actionable insights.
- Contributed to the optimization of data analysis procedures, resulting in enhanced efficiency.

## Skills

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|---|---|
| Programming Languages: | Data Extraction, Pytorch, Machine Learning, Deep Learning, LLM, NLP, Scikit-Learn, Model Evaluation, Model Deployment, Aws, python |
| Libraries/Frameworks: | Javascript, React, Flask, Pytorch, Onnx, VueJS, sklearn, xgboost |
| Tools / Platforms: | Cloud Formation, SageMaker, Datadog, Redshift, Git, Docker |
| Databases: | SQL, AWS S3 |

## Projects / Open-Source

**Hand written text detection** — *PyTorch, Transformers, AWS Textract, Deep Learning, CUDA*

Developed a robust hand-written text detection system using **PyTorch** and Transformer models, optimized with **CUDA** for enhanced performance and accuracy. The solution, deployed as an API with **FastAPI**, supports easy integration and scalability. Trained to recognize diverse handwriting styles, the model achieves high precision in real-world scenarios, showcasing expertise in computer vision and deep learning.

**AI ChatBot** — *RAG, NLP, LLM, NLTK, BERT*

AI chatbots leverage **RAG** (Retrieval-Augmented Generation) to enhance response accuracy by integrating external data sources. **NLP** techniques, supported by libraries like **NLTK**, enable efficient text processing and understanding. Models like **BERT** provide deep contextual comprehension, allowing chatbots to interpret complex queries and engage in meaningful conversations.