

Padmaja Suresh Kachare

Aspiring AI & Data Science Engineer | Machine Learning • Deep Learning • Data Engineering • NLP

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■ PROFESSIONAL SUMMARY

Motivated B.Tech AI & Data Science student with hands-on experience in machine learning, deep learning, NLP, and full-stack AI application development. Proficient in Python, TensorFlow, Scikit-learn, and data engineering pipelines. Proven ability to build end-to-end AI solutions—from data preprocessing and model training to deployment via Streamlit and Flask. Passionate about leveraging AI for real-world impact and continuously expanding expertise in scalable data systems and agentic AI.

■ INTERNSHIP EXPERIENCE

Artificial Intelligence Intern

Infosys Springboard | Remote, Mumbai | Oct 2025 – Dec 2025

- Implemented machine learning workflows including data preprocessing, feature selection, and model evaluation.
- Built AI-based mini projects using Python, Pandas, NumPy, and Scikit-learn.
- Explored AI applications in real-world problem solving through guided lab exercises.
- Worked on data analysis and visualization tasks to extract insights from structured datasets.
- Practiced model training, testing, and performance evaluation techniques using industry-standard tools.

AI & Data Science Intern

IM1B (Innovation Mission 1 Billion) | Remote | 2025

- Worked on AI-driven solutions addressing real-world social and technological challenges.
- Applied machine learning algorithms and data analysis techniques to develop prototype solutions.
- Performed data preprocessing, cleaning, and transformation for model training pipelines.
- Conducted model experimentation and evaluation to improve prediction accuracy.
- Collaborated with mentors to design scalable AI solutions for global-impact problems.

Data Science Intern

NullClass | Remote, Mumbai | Apr 2025 – Jun 2025

- Built a Tokenizer for basic NLP tasks using Python.
- Developed an Image-to-Text Translator with GUI for extracting and translating English text from images/videos.
- Created a Dual-Language Translator (English ↔ French & Hindi) using custom translation logic with GUI.
- Implemented Real-Time Voice Translation for English–Spanish conversations using speech recognition and TTS.
- Built a Rule-Based Hindi Translator with time and vowel constraints.

Data Science Intern

Prodigy Infotech | Remote, Mumbai | Sep 2024

- Created bar charts & histograms for age and gender distribution using Matplotlib & Seaborn.
- Cleaned Titanic dataset, handled missing values, and converted categorical data using Pandas.
- Built a Decision Tree Classifier using Scikit-learn to predict customer purchases.
- Performed sentiment analysis on social media data with NLTK and visualized results.
- Analyzed accident patterns and visualized hotspots using Folium and Matplotlib.

AI/ML Intern

SmartInternz | Remote, Mumbai | Jun 2024 – Jul 2024

- Built a KNN model for ASD detection with data preprocessing and evaluation metrics.
- Integrated Google Cloud tools (Vertex AI, Gemini) and applied prompt engineering techniques.

■ PROJECTS

AI Career Prediction & Guidance System [Python, TensorFlow, Streamlit, Scikit-learn]

- Developed an AI-driven platform predicting suitable career paths based on academic performance, skills, and interests.

- Implemented ML/DL models using TensorFlow to generate personalized career recommendations.
- Integrated skill gap analysis to identify missing competencies for selected career paths.
- Used job market trend analysis to improve recommendation accuracy.
- Built interactive Streamlit web app to visualize career paths and a feedback system for continuous model improvement.

Agentic AI Government Service Processing Platform [Python FastAPI, SQLAlchemy, MySQL, HTML/CSS/JS, JWT]

- Designed an AI-based automation system for processing government service requests (permits, licenses, citizen applications).
- Built backend using FastAPI, SQLAlchemy ORM, and MySQL with JWT-based authentication for secure citizen access.
- Integrated document verification and profile validation through DigiLocker APIs.
- Designed an AI agent workflow to automatically analyze, validate, and process service requests end-to-end.

Urban Risk & Slum Eviction Prediction System [Python, Scikit-learn, Pandas, Data Visualization]

- Developed an ML model to identify high-risk urban zones prone to displacement or eviction.
- Analyzed socioeconomic, demographic, and infrastructure datasets to detect vulnerability patterns.
- Visualized spatial data insights using interactive dashboards and mapping tools to support urban planning decisions.

ASD Detection Web App [Flask, KNN, MySQL, Python]

- Built a Flask-based KNN web app for ASD detection with MySQL integration, login system, and visual dashboards.

Lost Recipes Finder [Streamlit, Python, NLP]

- Developed a Streamlit app to discover region-based Indian recipes via voice/text search with an interactive map UI.

Real-Time Voice Translator [Python, SpeechRecognition, TTS]

- Designed a Python-based voice translator enabling real-time English ↔ Spanish conversations using speech and TTS modules.

■ DEEP LEARNING & NLP RESEARCH WORK

- Implemented RNN, LSTM, and GRU models for sequence data processing tasks.
- Worked with Transformer-based NLP models including BERT for text classification and analysis.
- Implemented text summarization and sentiment analysis systems using NLP techniques.
- Experimented with Generative models including GANs and Variational Autoencoders (VAE).
- Explored custom activation functions and neural network optimization techniques.
- Designed end-to-end system architectures for AI applications including backend APIs, data pipelines, and deployment workflows.

■ TECHNICAL SKILLS

Programming:	Python (Primary), SQL, HTML/CSS, JavaScript (Basics)
ML / DL Frameworks:	Scikit-learn, TensorFlow, Keras, NLTK, Hugging Face (BERT)
AI Techniques:	KNN, Decision Trees, RNN, LSTM, GRU, GANs, VAE, NLP, Prompt Engineering, Generative AI
Data Engineering:	ETL Pipelines, Data Cleaning & Transformation, Data Modeling, Structured & Unstructured Data
Databases:	MySQL, XAMPP, SQL Queries, Data Warehousing
Frameworks & APIs:	Flask, FastAPI, Streamlit, SQLAlchemy ORM, JWT Auth, DigiLocker API, REST APIs
Cloud & Tools:	Google Cloud (Vertex AI, Gemini), Google Colab, Jupyter Notebook, Git, GitHub, PowerBI
Other:	GUI Development, API Integration, Big Data (Basics)
Soft Skills:	Adaptability, Teamwork, Problem-solving, Curiosity, Communication

■ EDUCATION

B.Tech in Artificial Intelligence & Data Science Engineering

Aug 2023 – Present
(Ongoing)

SIES School of Graduate Technology, Nerul

Diploma in Artificial Intelligence & Machine Learning Engineering 90%	2025
<i>Government Polytechnic, Mumbai</i>	
HSC (12th Standard) – St. Mary's Convent Jr. College, Uran 82.50%	2022
SSC (10th Standard) – St. Mary's Convent High School, Uran 91%	2020

■ CERTIFICATIONS & TRAININGS

- **McKinsey Forward Program** — McKinsey.org (Jul 2025)
- **Work Ready Certification** — Beep (Apr 2025)
- **TCS ION Career Edge – Young Professional** — TCS ION (Feb 2025)
- **British Airways Data Science Simulation** — Forage (Oct 2024)
- **Cybersecurity Course** — Tech Mahindra Foundation / Skill India Digital Hub (Jan 2025)
- **Learn to Build a Real-Time Translation App** — NullClass (Apr 2025)
- **Get Started with GitHub Copilot** — Microsoft Learn (May 2025)
- **Prompt Design in Vertex AI** — Google Cloud (Jul 2024)
- **Develop GenAI Apps with Gemini & Streamlit** — Google Cloud (Jul 2024)
- **Nestle E-Learning | Sustainability** — Nestle (Mar 2025)

■ ACHIEVEMENTS & EXTRACURRICULARS

- **BIZENCE Startup Innovation Challenge:** Participated in a business strategy and startup simulation event; collaborated in a team to develop go-to-market strategies and navigate competitive business challenges.
- Consistently maintained 90%+ academic performance throughout Diploma program.

■ PERSONAL DETAILS & INTERESTS

DOB: 19 Nov 2004 | **Nationality:** Indian | **Gender:** Female | **Marital Status:** Single | **Location:** Uran, Navi Mumbai | **Interests:** Doodling, Creative Art