Ajay T Shaju

Artificial Intelligence & Data Science Engineer

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Skills

Programming Languages:	Python, LaTeX
Operating Systems:	Linux, Windows
Libraries/Frameworks:	Pandas, OS, Numpy, BeautifulSoup, Request, Matplotlib, TensorFlow, Open-CV, Playwright, LangChain
Technical Tools:	VS Code, Jupyter Notebook, Docker, MS Office Apps, G-Suite Apps, Photoshop, Excalidraw, Figma
Abilities:	Communication, Empathy, Sociability, Problem Solving, Observation, Leadership, Time Management

Experience

ITC LSTC | Data Science Trainee
Peenya, Bengaluru, India | 2nd Dec 2024 - Present

- **Deployed a fine-tuned Large Language Model(LLM) Locally** in the **internal network using Ollama and Open WebUI**.
- Automated IT security compliance checks on a development system using **shell scripting, scheduled weekly via cron**, generating PDF reports and log files, and **reducing manual effort by 4–5 hours per month.**
- Developed a **web scraping pipeline** that extracted structured data from three large medicine information websites, improving **workflow efficiency by 50% through parallel processing and optimized requests.**
- Engineered a **high-speed PDF extraction system** that structured complex data with a **7-second processing time for a 40-page document**, ensuring high accuracy and efficiency.

Projects

Inkwell: AI & Retrieval-Augmented Generation (RAG)-Based Personal Writing Assistant
June 2025
AI Writing Assistant *Source Code - GitHub*

- Designed an **alternative to fine-tuning LLMs** by combining *RAG* with a custom **"Style-Augmented Generation"** approach to **mimic personal writing style** from diverse blog documents.
- Implemented an AI assistant that prioritizes generating text in the **author's style over generic context-based responses, moving beyond typical RAG pipelines.**

Violence Detection from Videos (using Attention Mechanism)
August 2023 - May 2024
Video Surveillance | B.Tech Main Project *Source Code - GitHub*

- Developed a **custom neural network** to detect violence in videos using TensorFlow Deep Learning framework
- Used a functional approach for building the neural network and **combined LSTM with CNN** (with attention mechanism) for efficiency.

Marks2CSV: A tool to convert marks in answer sheets to CSV format using OCR
January 2023 - June 2023
Mark Entry Automation | B.Tech Mini Project *Source Code - GitHub*

- **Addresses the time-consuming task of mark data entry** of our teachers in the college
- Developed a customized software, resulting in **time savings of 5+ hours per week** with accuracy by 98%
- **Presented and Accepted at ICTEST24 Conference** organized by GMEC, Thrikkakara, Ernakulam. Kerala, India

Automated Financial Tracker using Gmail, Zapier, and Google Sheets
October 2024
Personal Finance Dashboard Automation *Medium Blog*

- Collected, cleaned, and organized **950+ financial transaction data** using specific steps in **MS Excel and Python**.
- Automated personal finance tracking by **integrating Gmail and Google Sheets via Zapier** to streamline financial data logging.
- Designed a Google Sheets dashboard with **Donut and Bar Charts, enabling real-time insights** across categories.

Education

7.8/10	**Bachelor of Technology (Artificial Intelligence & Data Science, AD)**, *SJCET, Palai, Kerala, India*	*2020 - 2024*
84%	**Higher secondary**, *Sanjos Senior Secondary School, Palai, Kerala, India*	*2020*
85%	**Matriculation**, *Sanjos Senior Secondary School, Palai, Kerala, India*	*2018*

Certificates

2024	**Career Essentials in Data Analysis by Microsoft-LinkedIn** , ETL, Analysis, Visualization of Data	*LinkedIn*
2023	**British Council English Score Certificate**, Core Skills CEFR C1 (539) and Speaking CEFR B2 (428)	*British Council*
2022	**Python For Data Science**, Intermediate course to do Data Science with Python	*NPTEL IIT-M India*
2021	**Joy of Computing Using Python**, Introduction to Python Programming	*NPTEL IIT-M India*

Achievements

2023-25	**Medium Website,** Technical Blogs	*Author*
2020-24	**Talks on AI & DS**, Various programs conducted across college(Offline & Online)	*Certificates*
2022-23	**IEDC Summit '22, ASTHRA '22-23** , Annual Entrepreneurship Summit/College Technical Festival(National Level)	*Designer*

Languages

Malayalam	Native proficiency (Mother Tongue, Public Speaking)
English	Professional proficiency (CEFR Tested, Contribution to Blender FOSS Repository)