# **Aniket Surjuse**

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#### **EXPERIENCE**

## Siemens Energy - Pune, MH

AI/ML Developer

July 2024 – Present

- Developed a GPT-4-powered internal QA chatbot, reducing engineering teams' information retrieval time by 80%.
- Built backend APIs using FastAPI and integrated CosmosDB for vector search to support RAG-based LLM responses.
- Automated AWS infrastructure (S3, Lambda, RDS) using CDK, improving deployment speed and reducing manual provisioning.
- Contributed to Al solution to auto-generate comments on customer documents by fine-tuning **T5**, **LLaMA 2**, and **DistilBERT**, cutting review time by **90**%.
- Applied LoRA, QLoRA, and PEFT techniques using Azure ML to optimize model training for cost-efficiency.
- Integrated model evaluation steps to ensure response quality and compliance with internal standards.

Al/ML Intern Jan 2024– June 2024

- Built an automated certificate validation system using **Google Document AI OCR** to extract key chemical and mechanical properties.
- Designed an LLM-driven validation agent (via LangChain) that performed unit conversions, flagged compliance gaps, and achieved over 95% accuracy.
- Developed an automated reporting pipeline that generates compliance reports with deviations highlighted, reducing review time from **hours to minutes**.

#### **SKILLS**

Languages: Python, C++, SQL

AI/ML: Pytorch, LangChain, LangGraph, Scikit-learn

Frameworks: FastAPI, Streamlit

Cloud & Tools: AWS (S3, Lambda, Sagemaker, CDK), Azure ML, Git, Docker

Core Expertise: LLMs, RAG, Agentic AI, NLP

## **PROJECTS**

## AGENTIC DOCUMENT EXTRACTION (source code: https://github.com/AniketSurjuse/agentic-pdf-extractor)

- Developed an Al-powered PDF extraction tool using **LangGraph** (for agent workflows) and **Pydantic** (for schema validation) with **Azure OpenAl** LLM.
- Extracts and preserves **document structure** text, tables, and images and outputs clean, well-formatted **Markdown**.
- Built modular **document parsers** with fallback strategies using LLM-driven reasoning and tool selection.

# GPT2 FROM SCRATCH (Live Demo)

- Rebuilt GPT-2 architecture from scratch in PyTorch to understand self-attention mechanisms, tokenization, and causal language modeling.
- Initialized from Hugging Face's 355M-parameter GPT-2 checkpoint and fine-tuned on instruction-following data using causal language modeling.
- Converted model to float16, reducing size by 50% for faster CPU inference and deployment.

## **EDUCATION**

### **GOVERNMENT COLLEGE OF ENGINEERING. AURANGABAD**

Bachelor of Technology, Computer Science; Cumulative GPA: 9.02/10

June 2024

#### **CERTIFICATIONS**

- Complete Agentic Al Bootcamp With LangGraph and Langchain Udemy
- Deep Learning Specialization Coursera (Andrew Ng)
- Machine Learning Specialization Coursera (Andrew Ng)