SHUBA SARKAR

**AI/ML ENGINEER**

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*SUMMARY*

AI/ML Engineer with 1+ years of experience applying machine learning and artificial intelligence to optimize business operations and automate workflows. Skilled in developing end-to-end ML solutions—from data processing and model development to deployment and monitoring. Currently contributing to AI-driven initiatives in the IT division of a leading bank. Committed to continuous learning, innovation, and delivering measurable impact through intelligent systems.

*PROFESSIONAL EXPERIENCE*

# Bandhan Bank Limited (SDE) May 2024 - Present

**SENSEI – AI-POWERED RAG CHATBOT FOR INTERNAL KNOWLEDGE RETRIEVAL**

 Built a Generative AI (GenAI) chatbot using Mistral 7B for language generation, MiniLM (BERT-based) for embeddings, FAISS for vector retrieval, and LangChain for orchestration within a Retrieval- Augmented Generation (RAG) framework.

 Developed a document ingestion pipeline to preprocess and embed over 10,000+ internal SOPs, FC CBS screen guides, and process manuals for scalable semantic search.

 Enabled contextual, AI-powered access to unstructured enterprise knowledge—boosting IT and ops support resolution speed by 50% and reducing manual query handling.

**UIVALIDATOR – AI-POWERED UI DESIGN QUALITY SCORING & AUDIT TOOL**

 Built a Chrome extension for real-time quality scoring of 200+ UI components (e.g., text fields, buttons) on hover using a Random Forest classifier, providing instant feedback (Poor, Okay, Good) based on design compliance.

 Developed a companion web portal for URL-based automated UI audits using Node.js, Puppeteer, and a Python FastAPI backend to extract components, run ML predictions, and generate detailed quality reports—improving design review efficiency by 40% across internal tools.

# KPMG AU (Data Analyst Virtual Intern) MAR 2023 - MAY 2023

Cleaned and prepared operational data using Python (Pandas, NumPy) for accurate analysis. Built Power BI dashboards to present key metrics for ops and IT decision-making.

*EDUCATION*

**MBA & PGP Business Analytics and Data Science** Bengal Institute of Business Studies, 2024

**BTech Computer Science** Calcutta Institute of Engineering and Management, 2022 **Higher Secondary Examination** Kendriya Vidyalaya No2 AFS STN, Srinagar, 2017 **Secondary Examination** Kendriya Vidyalaya No2 AFS STN, Srinagar, 2015

**CGPA 7.8**

# CGPA 9.0

**75%**

# CGPA 9.6

*TECHNICAL SKILLS*

Languages & Frameworks: Python, TensorFlow,

PyTorch, LangChain, scikit-learn, Java, Go, Node.js

Tools: Jupyter, GitLab, VS Code, Docker, Kibana

Databases: PostgreSQL, Redis, Elasticsearch,

MongoDB

AI/ML & NLP: Generative AI, Large Language Models (LLMs), BERT/GPT, RAG bots, Deep Learning, Time Series, Supervised & Unsupervised Learning

*CERTIFICATION*

**Machine Learning**- EICT & IIT, Kanpur **Power BI**- EICT & IIT, Kanpur

**Soft Skills-** NPTEL & IIT, ROORKEE

**Business Analytics and Data Science**- IBM Skill Network **SQL and Relational Databases-** IBM Skill Network