Thank you for the opportunity. I am sharing a brief write-up outlining the projects and initiatives I have undertaken, which I believe will be of interest for the AI role.

Azure AI-Powered Knowledge Assistant Chatbot: Designed and developed an enterprise-grade chatbot that enables users across the organization to perform intelligent AI-driven searches against a comprehensive internal knowledge base. This end-to-end solution leverages Azure AI Cognitive Services, CosmosDB, Azure Blob Storage, Python, FastAPI, Node.js, and a Vue.js frontend to deliver seamless natural language query experiences, conversation management and rich UI interaction.

Azure Corpus Ingestion & Administration Pipeline: Co-designed and built a robust administrative platform and data ingestion pipeline for managing the organization's knowledge base. This includes a full ETL process for processing, analysing, enriching, translating and storing structured and unstructured PDF/HTML data. The system incorporates monitoring and control capabilities through an intuitive web interface. Technologies used include TypeScript, Node.js, Python, FastAPI, Azure Functions, Azure document intelligence, Azure AI Service, Cognitive search service, Event Grid triggers, CosmosDB, and Blob Storage.

AWS Bedrock: I led the successful design, development, and deployment of advanced Generative AI solutions i.e. providing NLP capability, AI summarization etc. utilizing Anthropic's Claude, Claude Sonnet, and Haiku models through AWS Bedrock API. These solutions were implemented via a robust workflow involving a Java Spring Boot microservice > AWS Lambda > Bedrock API > Anthropic Claude Sonnet and Haiku foundation models. I extensively utilized Python's Boto3 and LangChain libraries to enable seamless integration and functionality. Additionally, I spearheaded the creation of a Bedrock KnowledgeBase for proprietary external sources, leveraging it as a RAG embedding model. This implementation was tested with select EBSCO customers, delivering innovative and efficient AI-driven solutions.

Azure GPT: I Led the successful design, development, and deployment of advanced Generative AI solutions with Azure gpt model for summarization of the documents. By leveraging Azure's suite of AI tools, I delivered cutting-edge solutions that enhanced operational efficiency and provided significant business value.

AI Chatbot: I have successfully designed, developed, and deployed an AI chatbot powered by OpenAI GPT, capable of simulating human-like conversations. This chatbot is customized to incorporate PDF-based Retrieval-Augmented Generation (RAG) and integrates wiki search functionality for enhanced information retrieval. It is a multi-user, history-aware, and agentic chatbot that leverages LangGraph routing, LangChain, AWS Lambda, and advanced RAG implementation to deliver dynamic, context-aware interactions. Explore its capabilities yourself - https://app.amesay.com/

Google AI Summarizer chrome extension: I have successfully designed, developed, and deployed the Google AI Summarizer Chrome extension powered by OpenAI GPT. This innovative tool transforms Google search results, lengthy articles, documents, and reports into concise, easy-to-read summaries. Leveraging advanced artificial intelligence, it

efficiently extracts key information, helping you quickly grasp the essential points. The extension features a trial mode and includes an integrated payment gateway for seamless upgrades. Explore its capabilities yourself at https://amesay.com/summarizer.html.

AWS Transcribe: I have a clear understanding and hands on of how to use AWS SDK for Python (Boto3) to call Amazon Transcribe to make a transcription of an audio file and also how to define a custom vocabulary to improve the accuracy of the transcription.

Other AI Projects (sagemaker): I successfully designed, developed, and deployed a full grown solution leveraging Cohere re-rank models thru sagemaker endpoint. I extensively used Boto3 and langchain libraries for this. I have extensive experience in deployment and provisioning instances for sagemaker models. Workflow for accessing sagemaker endpoint goes like this java spring-boot microservice > aws lambda > sagemaker endpoint.

AWS Translate: I have successfully designed, developed and deployed Amazon Translate and translate doc services to translate text to target language text providing localization capability for company products and also integrated custom terminology files for custom translation of certain terms in various languages. This solution is well integrated in the larger workflow in the company.

AWS in general: I have extensive experience and designed/developed full grown solutions with AWS technologies, including AWS Lambda (Python), S3, SNS, SES, EC2, ECS, CloudFormation, RDS, DynamoDB, DynamoDB streams, AuroraDB, and IAM roles etc. AND their cost optimization.

Other Experience

I have Considerable Experience in extensive Python component, java spring boot microservices development, deployment to AWS, maintaining C# .NET legacy apps etc. Apart from this I have played an integral role in projects ranging from authentication services, Oauth, SAML, OIDC application to migrating C# .NET applications to a Java microservices architecture.