AKSHAY PATIL

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EDUCATION

California State University: Masters in Computer Science — May 2024
Visvesvaraya Technological University, India: Bachelors in Information Science and Technology — June 2019

TECHNICAL SKILLS

Languages & Technologies
Python, Java, SQL

Web Development and Framework
HTML, React, REST APIs, Flask, Django, Fast API, Docker

DevOps & Tools
Git, GitHub, Azure DevOps, Vercel

Big Data and Data Engineering
Databricks, PySpark, Tableau

Cloud & Databases
MySQL, AWS, GCP, Pinecone

Machine Learning
TensorFlow, scikit-learn, OpenCV, Pytesseract, Keras, PyTorch

Areas Of Functional Expertise
Software Development Lifecycle (SDLC), Database Management, Troubleshooting, Data Analysis and Model Development, Testing, Teamwork and Cross-functional Communication, ETL pipeline

WORK EXPERIENCE

Technical Analyst – CogniSure, India — February 2020 – December 2022

- Analysed large amounts of unstructured insurance data and designed ETL pipelines, transforming data to structured JSON and storing metadata in MS SQL database for analysis and report generation
- Reduced manual effort by 50% by automating the process to validate Excel data against SQL database and generate SQL scripts for missing entries
- Developed an OCR system using Python, OpenCV, and Pytesseract, improving text extraction accuracy by 20% from scanned PDFs
- Managed and delivered tasks using Agile methodology in Azure DevOps, driving iterative development, incorporating regular feedback loops, and fostering continuous improvement throughout the project lifecycle
- Collaborated closely with cross-functional teams, including business domain experts and testing teams, to understand client requirements and deliver customized data solutions

Intern - Nitesh Estates Pvt Ltd, Bangalore, India — July 2018 – August 2018

- Engineered an intuitive 'Document Management System' with a user-friendly GUI using Python's PyQT library
- Utilized AWS S3 for backend data storage, ensuring secure and scalable data management

PROJECTS

Yelp Business Data Analysis [Databricks, Python, PySpark, Spark SQL, Spark NLP]

- Engineered a robust data pipeline to process and analyze over 10 million Yelp business reviews, leveraging Spark SQL for efficient querying and PySpark for distributed data processing of large-scale datasets
- Developed interactive dashboards and reports using data visualization techniques to communicate complex insights on customer satisfaction trends and business performance metrics to both technical and non-technical stakeholders

AI Customer Service Chatbot with Google Gemini API Integration [Python, FastAPI, React, Vertex AI, Pinecone, Docker]

- Developed an AI-powered chatbot using Google Gemini API and Retrieval-Augmented Generation (RAG) to provide context-aware responses for customer queries
- Implemented a scalable architecture integrating Pinecone vector store for knowledge retrieval and React frontend for seamless user interaction (Link: https://ai-e-commerce-chatbot.vercel.app/)

Disneyland Ratings Analysis [Python, Pandas, NLTK, Tableau]

- Analyzed 42,000 reviews from Disneyland branches to explore ratings, trends and perform sentiment analysis on customer reviews to understand the park's performance over time
- Designed interactive dashboard using Tableau to present key findings, facilitating data-driven decision-making

Resume Optimization System [Django, Python, NLTK, PyTorch, BERT, HTML, JavaScript, AWS SageMaker]

- Developed an AI-powered system to enhance resume alignment with job descriptions, incorporating grammar checks, synonym suggestions, and resume scoring based on cosine similarity
- Fine-tuned a BERT model and integrated Google Gemini to suggest missing keywords, enhancing resume quality, and created RESTful APIs for user authentication and data management

CNN for Handwritten Letter Recognition [EMNIST Dataset, Python, TensorFlow, Keras]

- Constructed and compared performance of CNN and Dense Feed-Forward Network for classifying handwritten letters
- Achieved 91.3% accuracy with the CNN and 90.3% accuracy with the dense network

COURSEWORK

- Artificial Intelligence
- Artificial Neural Network
- Tableau for Data Scientists from LinkedIn Learning
- IBM Data Analysis with Python from Coursera
- Advance Database Management
- SQL (Intermediate) Certificate from HackerRank
- Derive Insights from BigQuery Data Skill Badge (Google Cloud)