

Manoj Kumar Kolli

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SUMMARY

Accomplished Data Scientist and Software Engineer with a strong foundation in Python, AWS, and FastAPI, backed by a Master's in Data Science. Skilled in architecting scalable APIs, optimizing data pipelines, and deploying machine learning models to drive actionable insights. Proven expertise in designing cost-efficient solutions, developing interactive dashboards, and enhancing system performance across domains such as cybersecurity, SaaS, and data analytics. Adept at delivering innovative solutions that improve operational efficiency and support data-driven decision-making.

EDUCATION

Master of Science (Data Science) at **University of North Texas**, Denton, Texas 01/2023 - 05/2024 (GPA: 3.7/4.0)
Bachelor of Technology (Computer Science) at **SRKR Engineering College**, AP, INDIA 08/2017 - 08/2021 (GPA: 8.81/10)

TECHNICAL SKILLS

- Programming Languages:** Python, Scala, R, C, C++, JavaScript
- Databases:** PostgreSQL, MongoDB, DynamoDB, Redshift, MySQL
- Developer Tools & OS:** Docker, Kubernetes, Jenkins, Git, Postman, Linux, Tableau, Rapid Miner
- Cloud:** Amazon Web Services (AWS), Google Cloud Platform (GCP), Databricks, Snowflake
- Frameworks/ Libraries:** Django, Flask, FastAPI, TensorFlow, PyTorch, Machine Learning (ML), DL, ETL, GraphQL

EXPERIENCE

SENIOR CONSULTANT | CAPGEMINI | TAMPA, FLORIDA

11/2024 - PRESENT

- Automated manual processes, reducing the average manual worktime from 25 minutes to under 1 minute, enhancing operational efficiency and accuracy.
- Developed and deployed RESTful APIs using FastAPI, supporting high-volume data transactions with 99.9% uptime and ensuring scalability for future enhancements.
- Designed and implemented interactive dashboards, including a Streamlit-based solution for importing escalated emails, reducing email oversight incidents by 30% and improving issue resolution times by 25%.

SOFTWARE ENGINEER | CONSTELLA INTELLIGENCE | HYDERABAD, TELANGANA, INDIA

08/2021 - 12/2022

- Reduced operational costs by 35% by engineering and optimizing a cybersecurity data pipeline that dynamically allocates AWS Lambda, EMR, and ECS resources based on data size, demonstrating cost-effective system management.
- Maximized response efficiency by 20% and cut costs by 35% by fine-tuning Elasticsearch data queries, specifically targeting optimal shards based on data characteristics. Integrated IAM for secure access control and policy management across AWS services.
- Boosted data retrieval efficiency using Spark RDD and SQL in AWS EMR, reducing response times from 3 seconds to under one second and enabling direct access to S3 data segments through calculated byte offsets.
- Utilized DynamoDB to update rate-limiting parameters in real time, eliminating delays in AWS's default rate-limiting and enhancing system throughput by 15%, resulting in a 20% improvement in overall performance.
- Architected a robust ML framework using Scikit-Learn, and TensorFlow, improving classification accuracy to 85% for malicious emails and 95% for content detection, enhancing overall security response capabilities.

INTERNSHIP EXPERIENCE

SOFTWARE ENGINEER INTERN | CONSTELLA INTELLIGENCE | HYDERABAD, TELANGANA, INDIA

03/2021 - 07/2021

- Executed an ETL proof of concept with Python, using boto3, AWS Glue, and Redshift, converting 1.5 TB across 5000 files to parquet format, boosting efficiency by 12% through PySpark and SQLAlchemy integration.
- Formulated OCR and unstructured data solutions using Flask, improved data fetching with GraphQL, and implemented IAM policies for secure access control. Enhanced scalability and performance using Kubernetes and Jenkins-driven CI/CD pipelines.
- Drove the implementation of a data processing system within Snowflake that increased efficiency by 25%; this system allowed for faster extraction of actionable insights, directly influencing project outcomes and strategies.

SOFTWARE ENGINEER INTERN | SMART BRIDGE | VIZAG, AP, INDIA

05/2019 - 07/2019

- Developed an IoT solution using Python and PostgreSQL, optimizing communication protocols for seamless data transfer with the IBM Cloud, achieving less than 1 second latency, and enhancing system reliability and efficiency.
- Contributed to the development of industry-level C++ applications, focusing on efficient memory management and algorithm optimization, which enhanced the performance of embedded systems and real-time data processing tasks.

ENTREPRENEURIAL EXPERIENCE

PYTHON DEVELOPER AND CO-FOUNDER | CODE LOOP | HYDERABAD, TELANGANA, INDIA

03/2020 - 05/2022

- Crafted an intuitive website architecture with HTML, PHP, and JavaScript, incorporating MongoDB for data management; optimized backend processes that resulted in a 30% decrease in server response times.
- Designed and optimized SQL databases to handle large datasets efficiently, reducing query response times by 25% and improving data retrieval for educational content and user analytics.
- Devised a machine learning based AI Resume Analyzer and Enhancer, achieving an impressive efficiency of analyzing and providing feedback on resumes within 15 seconds, improving application quality for over 300 users.

ACADEMIC PROJECTS

Content Strategy Advisor Via Sentiment Analysis [[Github Link](#)] [skills: Django, Python]

- Formulated a high-accuracy sentiment analysis model to provide strategic content recommendations from YouTube comments, achieving 98.47% accuracy. Integrated visualization tools enhance content creators' decision-making capabilities.

AI Resume Analyzer [[Live Demo](#)] [skills: Python, LLM, Streamlit]

- Engineered an AI Resume Analyzer providing detailed feedback within 15 seconds to streamline the resume review process.

CERTIFICATIONS

- PCAP – Certified Associate in Python Programming
- Problem Solving (Basic) Certificate by HackerRank