Jemin Kachhadiya (AI Engineer)

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SUMMARY

Machine Learning Engineer with over 4 years of experience in Python development, specializing in the deployment and optimization of machine learning models. Expertise includes computer vision, data science, and automating tasks to reduce human dependency, particularly in catering to real-time problems.

WORK EXPERIENCES

Automation and AI Engineer, Crysalis (Columbus, GA and St. Louis, MO) **Mar 2024 - Present**

- Designed and implemented a real-time data pipeline, improving data accuracy and reducing downtime by 30%.
- Created 5+ dashboards for real-time monitoring, improving data accessibility and decision-making speed.
- Automated information flow across multiple locations, reducing manual effort by 70% and enhancing operational efficiency.
- Managed Google Workspace and Microsoft Admin portal, streamlining company policies and employee onboarding processes.
- Spearheaded a $110K Ethanol autonomous loadout project reduced to $50K, through in-house technical solutions, including auto BoL generation and secure server integration, reducing manual effort by 95%.
- Implemented truck weighing software, reducing manual steps by 20% and minimizing human error, while automating ticket information flow through custom email scripts, resulting in significant productivity gains.
- Led $80K Workbench project, implementing live dashboards for critical decision-making by integrating Siemens PCS 7 historian and HPLC data, resulting in improved plant engineer insights and increased production capacity.
- Developed chemical supply chain inventory and purchase requisition system using Google's AppScript, enabling multi-level spending tracking to improve financial decision-making.
- Established a comprehensive IT ecosystem with Palo Alto Networks, enabling remote access to critical devices and implementing Google ecosystem and AI tools to boost company-wide productivity.

Data Analyst, Realsoft (Remote – Part-time Contract) **Jan 2024 - Mar 2024**

- Leveraged SAS to analyze extensive electronic health records, employing advanced statistical methods that led to a 15% improvement in patient outcome predictions.
- Engineered interactive PowerBI dashboards visualizing critical healthcare KPIs, resulting in a 20% reduction in patient wait times and optimized resource allocation.

Graduate Research Assistant, CSU (Columbus, GA – Hybrid) **Sep 2022 - Dec 2023**

- Developed a cutting-edge video surveillance system for US Army base, integrating real-time object classification and tracking, reducing human monitoring needs by 80% with alert notifications.
- Led automated data annotation pipeline operations, executing data preparation and cleaning for imagery datasets.
- Trained high-performance computer vision model on NVIDIA Jetson, achieving 0.84 mean Average Precision score.
- Managed model deployment in production, optimizing GPU computing efficiency by 15% through CUDA and implementing deep learning techniques for low power usage.
- Engineered Python API with JSON interface, enabling seamless real-time transmission of system responses to Oracle database.

Application Development Associate, Accenture (Maharashtra, India – Remote) **Nov 2020 - Jun 2022**

- Implemented DevOps methodologies, automating data retrieval from Hadoop and AWS Athena in a Docker environment, integrating data validation with Jenkins for efficient CI/CD pipelines.
- Collaborated with Goldman Sachs on financial data research, developing a comprehensive data visualization dashboard for reporting.
- Led management of large-scale datasets on AWS cloud platform, handling financial data lake and performing advanced analytics using APIs and Airflow ETL tool.
- Developed script validation tool for non-technical team, independently saving over 100 hours of weekly manual effort.
- Trained NLP model to interpret requirements and prioritize projects from compliance documents, enhancing decision-making processes.
- Expertly preprocessed textual data for NLP applications, improving model accuracy and efficiency.

- Designed and implemented RPA-based web and database automation testing in an agile environment, accelerating QA processes.

SKILLS

Technical: Python, LlaMa, Java, R, LLM, SQL, Linux, SAS, Bash, YOLO, OpenCV, Hadoop, Spark, Google Workspace, Generative AI
Soft: Problem-solving, Team management, Project execution, Finance acumen, Critical thinking, Business

Packages: PyTorch, TensorFlow, Keras, Odoo, NumPy, Pandas, Matplotlib, SciPy, Scikit-learn, PySpark, ggplot2
Tools: Cursor, Perplexity, Pycharm, Appscript, Tableau, Git, Docker, Grafana, Airflow, Jira, Visual Studio, RStudio, Dbeaver, Confluence

EDUCATION

Columbus State University (Georgia, USA) **Aug 2022 - Dec 2023**
Master of Science in Computer Science (Artificial Intelligence and Machine Learning) **GPA 4.00 / 4.00**
L. D. College of Engineering (Gujarat, India) **Jul 2016 - Jul 2020**
Bachelor of Engineering in Electronics and Communication **GPA 8.38 / 10.00**

CERTIFICATIONS

Machine Learning (Stanford University), **R-Programming** (John Hopkins University), **Deep Learning** Specialization (Stanford University), **Data Science** (HarvardX), **Big Data** with SQL (Cloudera), **AWS** Fundamentals (Coursera), **GCP**.

PROJECTS

Gen AI using Large Language Models (Georgia, USA) Open Source Project - Mar 2024
- Optimized LLM model performance through advanced training, tuning, and deployment techniques, focusing on maximizing efficiency within specific constraints.
- Conducted research on fine-tuning language models for biomedical information retrieval, analyzing the impact on accuracy and relevance of results.

Multi-Object Tracker Surveillance System (Georgia, USA) Open Source Project - Dec 2023
- Engineered advanced multi-object tracking system using DeepSORT algorithm, incorporating object frequency counting functionality and enhancing overall precision by 6%.

Self-Driving Raspberry Pi Car - Computer Vision and IoT (**Georgia, USA**) Academic Project - Dec 2022
- Engineered autonomous navigation system for self-driving car prototype using Raspberry Pi, integrating advanced machine learning algorithms, TPU, and microcontroller in a Linux environment.

RF Buddy - Script Scanning Tool (**Maharashtra, India**) Accenture **Innovation** Project - Mar 2022
- Developed a custom code quality validation tool aligned with client specifications, and employed a production-ready executable version.

Visualizing Citi Bike Trips with Tableau (Gujarat, India) Coursera Certified Project - Oct 2020
- Designed and disseminated insightful data visualizations utilizing Tableau dashboards.

BirdStrike Prevention System - Computer Vision and IoT (**Gujarat, India**) Academic Project - Jun 2018
- Engineered real-time bird detection system using Caffe2 and OpenCV, integrating with Arduino for active birdstrike prevention in aviation environments.