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Juan Reyes

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Portfolio

AI Developer with 3+ Years of Experience in Machine Learning, Generative AI, Web Development and Data Analysis.

Work Experience

AI Engineer	RoleHounds	Nov 2022 - Present
	Remote	

- Engineered a web application that combines semantic search with commercial and open-source LLMs to provide personalized and accurate job recommendations using RAG. I used Django, PostgreSQL, HTMX, JavaScript, and Bootstrap 5 for the backend and frontend, respectively. The application was deployed on Docker on Amazon Lightsail.
- Developed a data pipeline for job listings extraction with custom crawlers (Selenium, Scrapy, bs4), data standardization (SQL, Python), and vector embedding for efficient retrieval.
- Implemented a chatbot within the web application using Amazon Bedrock, integrating LLMs to enable users to inquire about app functionality, thereby enhancing customer support.
- Fine-tuned multiple LLMs with techniques like QLoRA and LoRA to optimize job suitability classification.

Data Analyst	TCS Mexico	June 2022 – Nov 2022
	Remote MX	

- Spearheaded the design and ongoing optimization of ETL data pipelines at Walgreen Co., utilizing Python and SQL to consolidate historical data, resulting in a 33% reduction in data processing time and supporting a 21% improvement in analytical efficiency for strategic decision-making.
- Collaborated with cross-functional teams to pinpoint critical KPIs and engineered interactive Tableau dashboards, which enhanced real-time tracking and accelerated decision-making processes by 28%, significantly boosting operational responsiveness.

Machine Learning Engineer	Amatl Graficos	January 2020 - 2022
	Puebla, MX	

- Trained, tuned, and evaluated Gradient Boosting Machine (GBM) algorithms, including XGBoost and LightGBM, within Amazon SageMaker to forecast equipment failure dates from historical performance data, achieving an accuracy rate of 86%.
- Deployed an SVM classification model on AWS Lambda for inventory categorization, effectively reducing overstocking and understocking issues with a 91% accuracy rate.
- Utilized PyTorch within Amazon SageMaker to deploy a BERT model for sentiment analysis on customer satisfaction surveys, enhancing client retention by 23% and contributing to a significant uptick in customer referrals.

Technologies and Languages

- Languages: Python, SQL, Bash, HTML/CSS
- Technologies: PostgreSQL, AWS (S3, SageMaker, Bedrock, Lambda, etc.), Git, Linux, Docker, Django, PyTorch, Serverless, Tableau, Pandas, Numpy, Scikit-Learn, MLFlow and GitHub Actions
- Working knowledge of: JavaScript, Java, and C

Education

- LLB Law, University of Bristol, United Kingdom. — 2022 - 2023
- LLB Law, Cum Laude, Universidad de las Americas Puebla (UDLAP), Mexico. — 2019 – 2023

Projects

- <u>JobsCrawler:</u> A framework for asynchronous web scrapping that allows for the continuous collection of job postings from various online platforms into a PostgreSQL database using tailored scraping strategies.
- <u>Easy-SVM:</u> A user-friendly guide to training SVMs for predicting traffic accident severity, complete with data preprocessing and class imbalance solutions.
- <u>LLMOps 101</u>: An open-source guide to LLMOps, blending theory and practice for deploying Large Language Models effectively.

Extracurricular

- Authored papers on blockchain in <u>Smart Legal Contracts: From Theory to Reality</u> and on AI transparency in <u>EU's Transparency Obligations in the Era of AI: Is Transparency Enough to End Privacy Fatigue?</u>
- Selected for the <u>IDEAS Summer Program at UCSD</u>, focusing on ethical AI risks and the development of responsible ML and data science systems for public benefit.
- <u>Won the Bristol Data Science Society Datathon</u> by developing the most accurate SVM model to predict serious traffic incidents using comprehensive road and traffic data.
- Received the <u>Best in Unit Award</u> for achieving the highest mark in the 'General Principles of International Law' course.