

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

Work Experience

AI Engineer	RoleHounds Remote	Nov 2022 - Present
<ul style="list-style-type: none">Engineered <u>RoleHounds</u>, 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 Digital Ocean.Developed a production-grade data pipeline that involved extracting job listings using custom crawlers (Selenium, Scrapy, bs4), standardizing the data using SQL and Python, and implementing efficient vector embedding techniques for retrieval purposes.Fine-tuned multiple LLMs with techniques like QLoRA and LoRA to optimize job suitability classification.Designed a FastAPI endpoint on Azure Functions to gather user feedback, optimizing LLMs for more precise and personalized job recommendations.		
Data Analyst	TCS Mexico Remote MX	June 2022 – Nov 2022
<ul style="list-style-type: none">Led the design and maintenance of ETL data pipelines at Walgreen Co., leveraging Python and SQL to aggregate historical data, enabling enhanced analysis and informed decision-making.Partnered with teams to identify KPIs and developed Tableau dashboards for real-time tracking, streamlining decision-making.		
Jr. Machine Learning Engineer	Amatl Graficos Puebla, MX	January 2020 - 2022
<ul style="list-style-type: none">Trained, tuned, and evaluated Gradient Boosting Machine (GBM) algorithms, including XGBoost and LightGBM, as well as Support Vector Machines (SVM), to predict potential equipment failures using historical machine performance data, achieving an accuracy rate of 82%.Utilized PyTorch to harness the capabilities of BERT for sentiment analysis on customer satisfaction surveys, which improved client retention by 23% and led to an increase in customer referrals.		

Technologies and Languages

- Languages: Python, SQL, Bash, HTML/CSS
- Technologies: PostgreSQL, AWS, Git, Linux, Docker, Django, PyTorch, Azure, Serverless, FastAPI, Flask, Tableau, Selenium, bs4, Scrapy, Chroma, Pandas, Numpy, Scikit-Learn and GitHub Actions
- Working knowledge of: JavaScript, Java, and C

Education

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

Projects

- JobsCrawler: 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.
- Easy-SVM: A user-friendly guide to training SVMs for predicting traffic accident severity, complete with data preprocessing and class imbalance solutions.

- LLMOps 101: An open-source guide to LLMOps, blending theory and practice for deploying Large Language Models effectively.

Extracurricular

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