

Rafael Moraes

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- Experienced in AI development, proficient in project management, technical communication, and AI solutions.
- Demonstrated expertise in creating groundbreaking tools, leading teams, and delivering compelling presentations to large audiences.

Professional Experience

Gen AI and GCP Expert (Contract)

SweetRush, Canada

Jul. 2025 – Present

- Reviewed and advised on course content for **Coursera**, ensuring alignment with industry standards.
- Developed **100+** engaging course materials, including screen recordings and didactic images, enhancing learner experience.
- Collaborated with **2** instructional designers to create high-quality lessons, resulting in improved course ratings and learner satisfaction.

Full-Stack Developer

Freelance, Brazil (Remote)

Nov. 2024 – Jun. 2025

- Developed a secure, client-facing web portal using **React.js** and a Python (**FastAPI**) back-end, enabling customers to manage their accounts and access personalized service data.
- Designed and built secure **RESTful APIs** to handle user authentication and deliver personalized client data from a **PostgreSQL** database, supporting **1000+** concurrent users.
- Implemented a **CI/CD** pipeline using **GitHub Actions** and **Docker**, automating deployment to **AWS**, which ensured **99.9%** uptime and allowed for rapid feature releases.
- Collaborated with UI/UX designers in an **Agile** environment to translate client feedback into an intuitive interface, resulting in a **15-point increase** in customer satisfaction scores.

Full-time AI Developer (IT-02)

Agriculture and Agri-Food Canada, Canada

Sept. 2023 – Oct. 2024

- Led a team of **8** engineers to enhance and launch an AI deduplication tool I originally developed, now integrated into AAFC's ATIP process, automating tasks and saving **200+** hours per agent annually.
- Designed and built an intelligent document parser during the Microsoft AI Hackathon, capable of processing 100+ file formats and structuring key data, resulting in 132 hours saved annually.
- Developed a flight price logging and comparison tool to reduce government travel expenses, achieving **\$10,000+** in cost savings within one year.
- Maintained and improved [AgPal Chat](#) (Canadian government's first ever Gen AI chatbot), expanding its reach to support **1,200+** farmers across Canada.
- Advanced and productionized tools from my previous role, delivering presentations to **500+** people and driving cross-department adoption.
- Authored detailed technical documentation for the tools I developed, supporting **8+** developers, and created **6** executive-level artifacts to guide strategic decision-making and governance.

Co-op Student (AI developer)

Agriculture and Agri-Food Canada, Canada

May. 2023 – Aug. 2023

- Developed [AgPal Chat](#), a Gen AI chatbot leveraging RAG on highly curated agricultural data to assist **700+** Canadian farmers; awarded first place in Canada's [Public Service Data Challenge](#).

- Created an AI-assisted deduplication tool using NLP to identify exact and near-duplicate files, reducing deduplication time by over **75%** in AAFC's ATIP process.
- Authored **10+** internal knowledge-sharing articles to document key learnings, best practices, and technical insights, enhancing team efficiency and onboarding.

Skills

Technical Skills

- Generative AI: Expertise in RAG, LLM Fine-tuning, and AI Agent with models (OpenAI, Llama), LangChain, and Vector Databases, MCP, N8N.
- Deep Learning & NLP: In-depth knowledge of ANN, CNN, RNN, LSTM, Transformers, NER, MLOps.
- Core Data Science: Full model lifecycle from Data Cleaning, EDA, and Feature Engineering to Deployment. Strong foundation in Statistics, Linear Algebra, Time Series Forecasting, and Recommendation Systems.
- Python Stack: TensorFlow, PyTorch, Scikit-Learn, Pandas, NumPy, NLTK, Matplotlib, Django, Flask, Pyspark.
- Platforms: AWS (S3, EC2, Lambda, SageMaker, Bedrock), GCP (Vertex AI, BigQuery, GKE) and Microsoft Azure (Power Apps, Entra).
- Infrastructure: SDLC, CI/CD, Terraform, GitHub Actions, containerization with Docker and Kubernetes.
- Programming: Python, SQL, JavaScript, TypeScript, C#, MATLAB, Octave, OOP.
- Databases: MySQL, NoSQL, GraphQL, PostgreSQL (design, normalization, administration).
- Developer Tools: Git, GitHub, Power BI, REST API, Databricks.
- Frontend Development: HTML, CSS, React, Angular, Vue.js, Redux, Tailwind

Core Competencies

- Strong leadership with Agile project management experience overseeing co-op students.
- Excellent written and verbal communication skills as well as technical and non-technical presentations.
- Highly adaptable and reliable, with a strong commitment to integrity and respect.
- Proven ability to manage multiple priorities under tight deadlines, including working overtime when required.
- Fast and motivated learner, focused on continuous growth, development and collaboration.
- Bilingual in English and French, with native tongue being Portuguese.

Education

Artificial Intelligence Software Design, Algonquin College, Canada

Sept. 2022 - Aug. 2023

- Mastered knowledge representation, Python, machine learning techniques (NLP, computer vision, deep learning), and data preprocessing. GPA of 3.91/4.0

MEng (Hons) Chemical Engineering, Newcastle University, England

Sept. 2017 - Aug. 2021

- Achieved Second-Class Honours, First Division (2:1), equivalent to a GPA of 3.7/4.0.

Awards- Agriculture and Agri-Food Canada (AAFC)

- Instant Award (Aug 2023); Emerging Talent; Rising Star; and Outstanding Innovation Awards (Jul 2024)

References

Steve Rennie

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