Rodrigo Richards

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PROFESSIONAL SUMMARY

Computer Science Engineer and Machine Learning Engineer with experience in **architecture migration**, **predictive and prescriptive modeling**, **deep learning classification**, and **GenAI (RAG)**. Skilled in **process optimization**, **MLOps integration**, and cloud deployment (**Azure, Databricks**). Recognized for **proactivity**, **fast adaptation**, and **continuous learning**. Focused on applying advanced technologies to transform operations and deliver measurable business value.

EDUCATION

University of Concepción — Concepción, Chile
B.Sc. and M.Sc. in Computer Science and Engineering — *Mar. 2015 – Sep. 2022*

University of Chile — Santiago, Chile
Diploma in Data Science (in progress) — *Jul. 2025 – Present*

EXPERIENCE

EY - AI & Data — Las Condes, Chile
Machine Learning Engineer — *Nov. 2022 – Present*

- **Railway process optimization:** Designed and maintained models using **genetic algorithms** and **graph analysis** to optimize wagon assignment at the largest railway in Mexico, reducing processing times and increasing profits by up to 10%. Managed **Databricks clusters** and led meetings with **Databricks** and **Microsoft** (in English) for architecture validation.

- **Prescriptive mining model:** Implemented a **recommendation system** for operational strategies using **clustering**, **XGBoost**, **KMeans**, **GMM**, and **PCA**, increasing profits up to 20% and improving operational efficiency.

- **Architecture migration:** Led migration from **Azure Data Factory** to **Delta Live Tables (Databricks)**, achieving a 75% cost reduction. Coordinated migration of **tabular models in Azure Analysis Services**, engaging with international vendors.

- **ETL and reporting:** Developed ETL processes with **Kedro** and **Databricks**, orchestrated pipelines in **Azure Data Factory** and **Synapse**, and built Power BI dashboards for critical KPI visualization.

Punto Ticket S.A - Business Intelligence — Las Condes, Chile
Software Developer Intern — *Jan. 2021 – Mar. 2021*

- **Chatbot and dashboard:** Developed a **chatbot** using historical SQL data to streamline customer support, and created an **R/Shiny dashboard** with a predictive sales model, improving decision-making in the commercial area.

CERTIFICATIONS

Databricks Machine Learning Professional (2025)
Databricks Machine Learning Associate (2024)
Databricks Gen AI Fundamentals (2024)
Azure AI Fundamentals [AI-900] (2024)
Azure Fundamentals [AZ-900] (2024)
Data Science Bronze Badge (EY) (2024)
Cloud Computing Bronze Badge (EY) (2024)
Databricks Lakehouse Fundamentals (2023)

Technical Skills

Languages: Python, SQL, C/C++, C#, R, Java, Javascript
Technologies: Azure, Databricks, AWS, Docker, Apache Spark (PySpark), MLOps, CI/CD, DevOps, Git, PyTorch, Computer Vision, LLM, Kedro, Delta Live Tables, Data Factory, Power BI, Linux

Extracurricular Activities

Diploma Tutor: AI and ML Applications, Pontificia Universidad Católica, Santiago, Chile
C++ Tutor, OCI Labs, Concepción, Chile
Teaching Assistant in Artificial Intelligence, University of Concepción, Chile
Teaching Assistant in Programming Languages (Python), University of Concepción, Chile

Languages

English: B2 - TOEIC L&R 910 pts.