# Maria Granados

Data Scientist | GenAI & ML Engineering

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## Summary

Strategic and technical data leader with 6+ years' experience delivering production-scale machine learning solutions, driving data strategy and leading cross-functional teams. Proven success in leading enterprise-wide uplift in data literacy, streamlining operations, and designing scalable MLOps pipelines. Passionate about applying machine learning to global challenges, including sustainability and climate innovation.

## Skills

- **Programming and tools:** Python (advanced), SQL, Java, R, Snowflake, Databricks, Power BI, Talend, GitHub Copilot, dbt, Streamlit, SAS
- **Machine learning and AI:** Churn prediction, NLP, GenAI, RAG, TensorFlow, PyTorch, Scikit-learn, XGBoost, design of experiments, hyperparameter tuning, Snowflake Cortex
- **Engineering and MLOps:** Model versioning and monitoring, CI/CD, Streamlit, ETL, PySpark, metadata-driven pipelines, MLflow, AWS, GCP, DevOps
- **Data strategy and delivery:** Agile, Scrum, stakeholder engagement, data governance, self-service enablement

## Professional Experience

### Senior ML Engineer / Data Scientist
P&N Bank | July 2023 – Present | Perth, Australia

- Led all machine learning and GenAI initiatives as technical lead across the bank, mentoring the analytics team on solution builds, stakeholder engagement and fostering data science capability uplift for timely project delivery
- Deployed the bank's first internal machine learning churn models for home loans and term deposits, influencing product pricing strategy by identifying a 30% churn reduction opportunity and surfacing new understanding of product churn dynamics
- Applied factorial design of experiments to optimise model selection and improve F1-score and PR-AUC by 20% on imbalanced datasets through targeted hyperparameter tuning
- Co-developed an NLP-based abuse detection prototype using Hugging Face transformers on financial transaction data, enabling insights on financial abuse to create a strategy to protect vulnerable customers
- Prototyped interactive GenAI applications using Snowflake Cortex, LLMs, and Streamlit to demonstrate internal capability for automating self-service analytics
- Deployed automated applications with Streamlit and Power BI to accelerate data insights, saving $110K+ in FTE capacity and enabling reallocation to higher-impact work
- Co-designed scalable data architecture in Snowflake (cloud-native) to support MLOps and Streamlit DevOps pipelines, enabling model versioning, CI/CD integration, reproducibility, and production monitoring, ensuring scalability and cloud performance
- Led Agile delivery as Scrum Master, aligning analytics, machine learning and data engineering to deliver iterative, value-driven data products
- Delivered organisation-wide uplift in data literacy, increasing access to actionable data insights and reducing low value initiatives, saving 3-12 months of delivery effort per initiative and saving an estimated $250K-$400K in project costs annually
- Partnered with C-suite executives, product teams, data engineers and frontline teams to create data science solutions, automate data driven insights and accelerate decision making
- Advocated for documentation, automation, and reproducibility by developing reusable components, technical standards (Python, SQL, Power BI), and delivery templates, significantly improving team efficiency and consistency

**Data & AI Consultant**
Deloitte | June 2022 – June 2023 | Perth, Australia

- Turned around a $1M high-risk data migration project at Deloitte as technical lead, restoring delivery confidence, preventing $250K+ in further cost overrun and recognised by Deloitte partners for leadership in rescuing the project
- Led cross-functional team of 10, modernising a 20-year legacy database across departments and enabling scalable analytics.
- Designed and delivered metadata-driven ETL pipelines in Talend with Java and Regex, applying CI/CD for scalable, maintainable ingestion of millions of records
- Collaborated across squads to align Java-based ingestion systems with cloud-native analytics platforms
- Mentored team members in DevOps, Talend, Git, and pipeline debugging, lifting delivery capability
- Improved data quality and stakeholder trust by developing monitoring dashboards, delivering targeted training, and driving collaborative agile delivery
- Facilitated agile ceremonies and stakeholder engagement to align delivery with evolving business needs

**Data Analyst**
Curtin University | March 2021 – June 2022 | Perth, Australia

- Automated accreditation reporting for a Top 100 Business School, reducing reporting time by 90% (500+ hours saved biennially), improving data accuracy and compliance, and enabling faster, more confident leadership decisions
- Led end-to-end data migration and analytics delivery, building scalable ETL pipelines and reports (Python, SQL, SAS, Power BI), aligning outputs with accreditation and institutional standards
- Oversaw project planning, stakeholder collaboration and drove continuous improvement through agile coordination, ensuring reporting met evolving requirements
- Delivered privacy impact assessments and compliance reviews, ensuring regulatory alignment and supporting ethical, secure, and responsible use of data across reporting and analytics workflows

**Data Analyst & IT Manager**
Bridge42 | Aug 2019 – Mar 2021 | Perth, Australia

- Delivered automated Power BI dashboards and regression analyses, enabling data-driven decision-making for executives and clients
- Optimised IT infrastructure and vendor strategy, reducing costs by 70% while improving scalability and reliability
- Modernised data security policies and remote access infrastructure, ensuring NIST-aligned compliance and operational continuity during COVID-19

**Education**

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- Master of Data Science, University of Sydney, (2023 – 2027)
  *Completing part-time while working full-time*

- Bachelor of Data Science, Curtin University, (2020 – 2022)
  *Discontinued due to COVID-19 and transitioned to work full-time, currently completing Master's*

**Certifications**

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- Snowflake training: MLOps and GenAI integration (2024)
- LLM-powered Streamlit App with Snowflake (2025)
- Extensive self-taught expertise in Python, SQL, Java, machine learning and data engineering

**Portfolio**

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- GitHub: github.com/mariavgranadosj (portfolio under active development)