

Armandt Erasmus

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EDUCATION

University of Pretoria

Bachelor of Science in Physics

Bachelor of Science Honours in Physics specialising in Financial Engineering

Institute and Faculty of Actuaries

Actuarial Science Student Member - Actively Progressing Toward the FIA and CERA Designations

Actuarial Exams: CB1, CB2, CB3, CS1, CM1 (A211 & A213), CP3 - (Expected 2027: CS2, CM2, CP2)

Graduation: December 2024

Pretoria, South Africa

Graduation: December 2026

EXPERIENCE

MiWay Insurance Limited

Actuarial Analyst – Operational Efficiencies, Research & Development

Feb 2026 – Present

Midrand, South Africa

- Led the design and enterprise rollout of a production document-forensics platform, coordinating 14+ stakeholders to deliver a solution used by over 75 users across 3 business units, replacing manual document verification and generating an estimated R7 million annual benefit.
- Engineered a modular fraud engine with 24 document forensic modules, probabilistic evidence scoring and automated tamper detection, producing investigator-ready fraud assessments in under one second per document.
- Owned the full software development lifecycle, architecting secure Django/SQL Server infrastructure, enterprise RBAC, fail-safe data integration with a 1.8M-record warehouse and automated deployment for a scalable production platform.

SolveCo Actuarial Services (Pty) Ltd

Actuarial Analyst

Jul 2025 – Feb 2026

Pretoria, South Africa

- Built a centralised multi-asset financial reporting engine (VBA) covering 50+ portfolios and 10+ asset classes, standardising valuations, fair-value movements, cash-flow timing, and FX attribution to deliver IFRS, US GAAP, and GIPS-aligned TWR/MWR performance reporting.
- Developed a Python-based model validation framework that automated data preparation and testing for long-term insurance pricing models, improving governance and auditability while reducing testing timelines by 50%.

Google Developer Student Clubs

Machine Learning Engineer, University of Pretoria Campus Lead

Jul 2023 – Jul 2024

Pretoria, South Africa

- Led the Google Developer Student Clubs at the University of Pretoria, designing and delivering applied machine learning workshops focused on end-to-end modelling pipelines, from data preprocessing and feature analysis to model training and deployment, using Python and Streamlit for real-world business use cases.

PROJECTS

QuantOS - Quantitative Pricing, Credit Risk & Capital Markets Analytics Engine | *Python, SQL, C++*

- Designed and built a quantitative analytics platform with real-time market data pipelines and low-latency SQL storage, supporting derivatives pricing, portfolio analytics, and IFRS 9 credit risk across 500,000+ records.
- Implemented pricing and risk engines including derivatives valuation, volatility surface construction, XVA, and an IFRS 9 Expected Credit Loss framework (PIT PD, LGD, EAD, macroeconomic stress scenarios, VaR, CVaR).
- Automated daily market and credit data ingestion pipelines using Python and GitHub Actions, enforcing data quality checks and populating SQL stores for downstream analytics.

SKILLS & CERTIFICATIONS

Technical: Python (Streamlit), SQL (PostgreSQL, MySQL, PL/SQL), C++, R (Shiny), Excel, VBA, MATLAB, SAS

AI/ML & Data: Databricks, Scikit-Learn, TensorFlow, PyTorch, NumPy, Pandas, PySpark, Power BI, MLOps

Project Management: Agile, Scrum, Stakeholder Management, Risk Management, Scheduling, Project Planning

Software Engineering: Django, REST APIs, Docker, Git, Azure/AWS

Certifications: CFA Level I, CFI Financial Modeling & Valuation Analyst (FMVA[®]), CFI Capital Markets & Securities Analyst (CMSA[®]), IFRS 17: Insurance Contracts - AICPA & CIMA, IBM Data Science Professional Certificate, Google Project Management Certificate