



Rohan van der Walt

Professional background

- **Senior Expert Consultant** at CFS Group GmbH (11/2022 - 05/2024)
- **Senior Front Arena Developer** at Eqonex GmbH (10/2019 - 10/2022)
- **Senior Capital Markets Tech Consultant** at Elenjical Solutions (09/2017 - 9/2019)
- **Technical Business Analyst** at Investec Asset Management (07/2016 - 09/2017)
- **Front Arena Analyst/Developer** at Absa/Barclays Capital (10/2013 - 06/2016)
- **Murex Consultant** at Excelian/Luxoft (South Africa) (05/2012 - 09/2013)
- **Front Arena Analyst/Developer** at Absa/Barclays Capital (01/2010 - 05/2012)
- **M.Sc. Project** at Synthesis Risk Consulting (07/2009 - 12/2009)

Education

- **M.Sc** Degree in Business Mathematics & Informatics (Data-Mining) at North-West University. (Cum Laude) (2009)
- **B.Sc Honours** Degree in Business Mathematics & Informatics (Data-Mining) at North-West University. (Cum Laude) (2008)
- **B.Sc** in Business Mathematics & Informatics at North-West University (2005 - 2007)
 - **Majors:** Computer Science, Statistics, Mathematics and Economics
- Grade 12 / National Senior Certificate (7 Distinctions) (2004)

Languages

- English (business fluent)
- Afrikaans (native)
- German (basic)

Certifications

- AEF Base Certified Developer - Sungard Front University

Personal Projects

- <https://tradealgorithms.net> - Intermarket spread time series data collection allowing users to deploy arbitrage algorithms between markets.
- <https://spreadalgo.com> - Intermarket spread timeseries display
- <https://fwdcrv.com> - Realtime cryptocurrency futures curve display

Business Know How

- Familiarity with various asset classes within capital markets
- Position and Risk Management Systems
- Algorithmic Trading (Cryptocurrencies), Automated Hedging, Strategy testing, Trading Systems
- Real-time Business Intelligence Reporting and Alerting
- Project management

IT Know How

- Python 2.X, Python 3.X
- Python libraries/frameworks:
 - FastAPI / Flask (Web frameworks)
 - SQLAlchemy (ORM)
 - Alembic (Database Schema Versioning)
 - ccxt
 - Websockets
 - Pandas / Polars
 - numpy / scipy
 - QuickFIX / SimpleFIX (FIX messaging)
- Virtual environment management: pyenv / pipenv / poetry
- Other programming languages:
 - Java, C#, VBA, Javascript, Typescript
- CI/CD Tools: (Continuous Integration / Deployment Tools)
 - Ansible, Jenkins
- Databases:
 - PostgreSQL, MongoDB, MySQL, Oracle, InfluxDB, TimescaleDB, Redis
- Docker Container Technologies: docker-compose, Docker Swarm, Dockerfile
- Amazon Web Services (AWS Cloud): EC2, ECR, KMS, Route53 (DNS), Cloudwatch
- HTML, XHTML, XML, JSON, YAML/YML
- Bash shell scripting
- Airflow - dependency graph based batch orchestration platform
- Celery for horizontally scalable tasks across clusters. (Some basic experience with Dask, Spark / PySpark)
- SQL, ASQL, MySQL, MSSQL, SQL Server, Integration Services (SSIS), Analysis Services (SSAS), Reporting Services (SSRS)
- SAS Enterprise Miner (Data Mining), Cognos Powerplay, Sagent Solution, SAS Data Integration Studio,
- MS Windows until 11, Windows Server 2003-2016, Ubuntu Server, CentOS
- SAS (Base, IML, Enterprise Miner), Matlab, R / S-Plus, Eviews (Econometrics)
- Microsoft Excel + VBA
- SWIFT and FIX-Protocol knowledge
- Trading systems:
 - Front Arena (PRIME 2010.x - 2024.x, ADS, APH, AMB, AMBA, ATS, AEF, ADFL, ACM, ADM, AEL, ASQL, BDP, Pace, Trading Manager, Administration Console, Information Manager, Excel Upload Tool, Arena Web ...),
 - Murex Mx.3, Workflows, Settlements and Confirmations, Data Dictionary
 - Broadridge (Itiviti) Tbricks

Professional experience (selection)

Developer for a Front Arena introduction project at a German state bank in Munich

- Migration Process - Python optimization of migration pipeline from Summit to Front Arena
 - 90% improvement. Reduced processing time from 3 hours down to 15 min.
 - Saving hours every day, allowing for faster development interactions
- ATF (Arena Testing Framework) - Developed automated test suites covering
 - FX, MM, FI, IRD - Trade Entry and lifecycle (settlements + confirmations)
 - Functional/Unit Tests, Integration Tests and Regression Tests
- Jira <-> ATF Integration using Atlassian Jira API to automatically generate Test Execution files.
- Knowledge transfer to internal employees.
- Front Arena Trade Cleanup/Deletion script focused on test environments.
- Liaison with business departments and specialists for requirements gathering.
- Various AEF developments using Python within the Front Arena framework.

Lead Python Developer at Cryptocurrency Exchange in US/Hong Kong/India (Remote)

- Responsible for project setup and knowledge transfer for new team members.
- Developed and deployed Docker Swarm services using Python based containers.
- CI/CD using Github Actions.
- 3rd Level system support in case of production incidents.

Front Arena / Itiviti Tbricks maintainer/developer at Eqonex in Berlin

- Built integration between Front Arena and 9 cryptocurrency exchanges to perform independent balance and position reconciliation for an internal fund and the client trading portal. Instrument Types covered: FX, Cash, Futures and Options (Deribit only)
- Set up a dynamic compliance limit framework within Front Arena to manage risk exposure on exchanges and user level.
- Built a containerized Front Arena environment for automated FA environment building and deployment. (docker + ansible)
- Setup Broadridge (Itiviti) Tbricks instance for use as crypto currency position keeping backend. Designed and developed integration with internal python based OEMS.
- Built FIX market data adapter for crypto exchanges, enabling Itiviti Tbricks to interface and subscribe to crypto exchange market data feeds.
- Technical sales demos and support for existing and prospective clients.
- Keywords: Docker, Python, AWS, FIS, Sungard, Front Arena, Java, Tbricks, Ansible, FIX

Murex consultant at various clients in South Africa

- Technical founder - Hedgelab (Internal business unit)
 - A cloud based (AWS) portfolio & risk management system for small fund managers.
- Murex Consultant at Rand Merchant Bank.
- Feature Analyst at Standard Bank - Investment Banking Tech.
- Opportunity Lifecycle BI project for Investment Banking Exco that combines data from various sources e.g. Salesforce Pipeline, Position Keeping System (ACBS), Accounting System (FMI) and Risk System (RCC). These dashboards can show business unit heads an overview of their business with unprecedented ease and speed.
- Murex Support at MMI Holdings
- Assisted with Back Office and Integration focused BAU queries. As well as automation of an existing manually intensive Stress Testing process using Python. Built a reporting Proof of Concept in QlikView using Murex Data Mart.
- Keywords: Docker, Python, Pandas, Celery, AWS, ECR, CI, Murex, MongoDB

Technical Business Analyst at Investec Asset Management in Cape Town

- Technical Business Analyst in the Investments IT: Project Delivery team.
- Design and build of Portfolio Exposure Reporting solution on QlikView, providing fund managers detailed historical exposure breakdowns across various dimensions, e.g. Risk Ratings, Regions and Countries.
- Other projects: Strategy Tagging performance attribution and assistance on Statpro Revolution proof of concept.
- Keywords: SQL, QlikView, Talend

Front Arena Analyst/Developer at Barclays Capital in Cape Town

- Front Arena Analyst/Developer in Markets IT: Trade Management with a focus on the Equities and Prime Brokerage streams.
- Projects: Money Market Dematerialisation - Responsible for designing and implementing ISIN Management workflow. This project involved detailed exposure to the Swift MT598 message specification and integration with the South African central securities depository (Strate) using MQ

Murex Consultant at Excelian/Luxsoft in Centurion

- MMI Project - Greenfields implementation of the Murex Mx.3 trading system at MMI Holdings. I worked on the back office workflow stream, where the trade lifecycle is managed including validation, confirmation, matching and settlement.
- My duties included gathering and documenting requirements, as well as implementing changes in Mx.3, mainly using Data Dictionary/Workflows. Achieved an Outstanding/Outstanding performance rating.

Front Arena Analyst/Developer at Barclays Capital in Sandton

- Front Arena Analyst Developer in Markets IT: Trade Management and Algo Trading with detailed exposure to Front Arena in an investment banking environment.
- Developed solutions for Front Office, Middle Office, Risk and Back Office teams using a range of technologies. My role supported the entire trade floor. Including but not limited to: Fixed Income, Currencies, Commodities, Equities, Interest Rate Derivatives, Swaps, Options, Credit Derivatives, Equity Derivatives, Future/Forwards and Prime Brokerage.
- Participation in the implementation, migration and upgrade processes in Front Arena.
- Developed Front Arena Applications using ACM and AEL Python as well as ADFL and ASQL.
- Keywords: C#, Python, ACM, AEL, ADFL (Data flow language), SQL, SSIS, SSRS, Sungard AED (Certified Developer)

M.Sc. Project at Synthesis Risk Consulting in Johannesburg

- This project is part of the requirement to complete my M.Sc degree at the Centre for BMI, North-West University. I developed a Monte Carlo Scenario Generation Framework for my client, Synthesis Risk, following project management guidelines.
- Keywords: C#, PMBOK Project Management