# SALEEM ADELEH

## Quantitative Researcher & Algorithmic Trading Specialist

saleem.adeleh@gmail.comsadeleh.pro+32 467 65 60 85Belgium

#### PROFESSIONAL SUMMARY

Senior Quantitative Researcher with 10+ years of expertise in developing Al-driven algorithmic trading systems and systematic investment strategies. Expert in Python, C++, machine learning, and financial modeling with strong focus on risk management and portfolio optimization. Successfully led development of proprietary trading systems processing 500,000+ historical experiments with 5.7x performance improvement.

#### **CORE COMPETENCIES**

## **Programming & Technologies:**

- Python, C++, Java, SQL
- NumPy, Pandas, SciPy, TensorFlow
- · Scikit-learn, Matplotlib
- Machine Learning & Deep Learning

#### **Technical Infrastructure:**

- MLOps & Model Deployment
- Cloud Services & Production Systems
- Linux/Windows Environments
- High-Performance Computing

#### **Quantitative Finance:**

- Systematic Strategy Design
- Backtesting & Model Validation
- Performance Optimization
- Risk Management & Portfolio Theory

#### **Professional Skills:**

- Quantitative Research
- Technical Leadership
- Data Analysis & Visualization
- Financial Markets Analysis

#### PROFESSIONAL EXPERIENCE

## **Senior Quantitative Trading Researcher**

Self-Employed Consultant

2018 – Present Belgium

- Architected and deployed sophisticated quantitative models for systematic trading strategies, achieving consistent alpha generation across multiple asset classes
- Engineered high-performance research and backtesting infrastructure in Python, processing terabytes of financial data with microsecond precision
- Developed proprietary machine learning algorithms for market prediction, implementing advanced feature engineering and selection techniques
- Translated complex investment hypotheses into production-ready algorithmic trading systems with robust risk management frameworks
- Implemented comprehensive MLOps pipelines for model deployment, monitoring, and automated retraining in cloud environments
- Achieved validated backtest performance of 446% total return with 4.69 Sharpe ratio and maximum drawdown of -10.99%

**Machine Learning Expert** 

Innoveras LTD

2014 - 2018

Remote

- Researched and developed cutting-edge machine learning algorithms for high-frequency trading and market microstructure analysis
- Built sophisticated predictive models analyzing multi-dimensional financial datasets, identifying actionable trading signals
- Implemented quantitative models for market outcome prediction with demonstrated accuracy improvements of 25-40%
- Mentored junior data scientists on advanced modeling techniques, statistical validation, and financial domain expertise
- Collaborated with portfolio managers to integrate ML models into existing trading workflows and risk management systems

# **Software Engineer**

2012 - 2014

Palestine

Experts Turnkey Solutions

- Designed and implemented core system architecture for institutional online trading platform serving major financial institution
- Developed high-performance, scalable code ensuring regulatory compliance and secure transaction processing
- Maintained critical trading infrastructure with 99.9% uptime, providing 24/7 technical support and system optimization
- Collaborated with banking stakeholders to deliver custom features meeting strict regulatory and performance requirements

### SIGNATURE PROJECT

## Smart Alpha Factory: Proprietary Al-Driven Systematic Trading Platform

**2020 – Present** 

- System Architecture: Designed and built comprehensive systematic trading engine automating entire portfolio lifecycle from alpha research to live deployment
- Proprietary Innovation: Developed "Smart Feature Intelligence" system analyzing 500,000+ historical experiments to identify predictive feature synergies, achieving 5.7x performance improvement
- Multi-Objective Optimization: Implemented advanced optimization framework testing 100k+ portfolio combinations across 6 strategic objectives (Max Sharpe, Min Risk, Max Return, etc.)
- Exceptional Performance: Achieved validated 446% total return with 4.69 Sharpe ratio and 10.99% maximum drawdown on flagship portfolio
- **Rigorous Validation:** Conducted extensive out-of-sample testing achieving 80% success rate on top-performing portfolios, demonstrating minimal overfitting
- **Technical Implementation:** Built using Python cloud infrastructure (aws), and real-time data processing capabilities

#### **EDUCATION**

#### **Bachelor of Science in Computer Systems Engineering**

2007 - 2012

Birzeit University

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Specialized in Software Engineering, Advanced Data Structures, and Algorithm Design

Coursework: Machine Learning, Artificial Intelligence, Financial Mathematics, Statistical Methods

Relevant Coursework: Database Systems, Computer Networks, Systems Programming, Mathemati-

# cal Modeling

# **PROFESSIONAL CERTIFICATIONS**

Certified Quantitative Finance Professional (EPAT	2023
Technical Analysis Using Quantitative Methods	2021
Quantitative Approaches to Position Sizing and Portfolio Management	2020
Python for Data Science and Machine Learning	2016
Advanced Risk Management in Trading Systems	2019

# **LANGUAGES**

• English: Professional Proficiency (Oral & Written)

Arabic: Native Proficiency (Oral & Written)Dutch: Elementary Proficiency (A1 Level)