

Mobin Zarekar

*MQL, CPP Developer / Algorithmic Trading
Strategist / Quant / Technical Analyst / HFT /
DevOps*

Ankara, Turkey
+90-5078461992
mobin@zarekar.com
zarekar.com
in zarekar

Professional Summary

Forex Trader, Quantitative Analyst, and Algorithmic Trading Developer with extensive experience in financial markets. Since 2017, I have specialized in MQL5/MQL4 development, building automated trading systems that mimic manual trading decisions through advanced algorithmic frameworks and AI-driven signal prediction. With a programming background dating back to 2008 in PHP, MATLAB, C++, and other languages, I combine deep technical expertise with real-world trading insights to design robust, high-performance solutions in capital markets.

Core Technical Skills & Expertise

Trading Strategies & Analysis	Price Action, Smart Money Concepts (SMC), ICT, Ichimoku, Order Flow, Market Structure, and Liquidity Analysis.
Algorithmic Trading & Automation	Expert Advisor (EA) development, custom indicator creation for MetaTrader platforms, automated trading systems, and robust backtesting methods.
Programming & Development	MQL5, MQL4, Python, C++, PHP, MATLAB, SOLID Principles, Object-Oriented Programming (OOP)
Quantitative & Statistical Analysis	Modeling, Machine Learning for market prediction, dynamic parameter standardization, and risk management modules.
Integrated AI Solutions	Deep learning based signal classification, neural network hyperparameter tuning, and real-time AI model prediction integration.

Professional Experience

- 2017 – **Algorithmic Trading Developer & Forex Trader**, *Freelance*, Istanbul/Ankara, Turkey
- Developed and deployed automated trading systems and 50+ Expert Advisors/indicators using MQL5/MQL4.
 - Created C++ DLL modules to extend core functionalities in trading applications and enhance performance.
 - Built custom solutions for risk management, multi-strategy execution, and quantitative analysis.
 - Integrated advanced backtesting frameworks using MetaTrader Strategy Tester and implemented real-time decision-making modules with AI support.
 - Implemented real-time AI model prediction integration with deep learning for signal classification and automated execution.
 - Specialized in Price Action, Smart Money Concepts (SMC), ICT, Ichimoku, Order Flow, Market Structure, and Liquidity Analysis.
- 2012 – 2017 **Software Engineer & Quantitative Analyst**, *Various Projects*, Iran
- Delivered complex software solutions across financial and industrial sectors.
 - Led research projects on statistical modeling, optimization techniques, and algorithm design.
 - Applied advanced mathematical and statistical methods to solve complex problems.
 - Developed meta-heuristic algorithms including Pareto simulated annealing approaches.

Major Project

Title	Comprehensive Automated Trading Platform with AI-Driven Signal Prediction
Overview	Developed a unified platform that transforms traditional trading strategies into fully automated, algorithm-driven systems. This flagship project—documented in the paper “A Comprehensive Platform for Automated Trading Robots: A Novel Deep Learning Approach to Signal Performance Prediction Along with MQL5 Library”—addresses the long-standing challenge of replicating manual trading expertise in an automated environment.
Key Features & Innovations	
Trader’s Mental Process Simulation	Designed to capture and replicate the nuanced decision-making process of manual traders by converting subjective trading insights into objective, algorithmic rules.
Modular & Reusable Architecture	Utilized SOLID principles to create independent, easily maintainable modules for each trading aspect (from trend analysis to signal generation), enabling rapid integration of new strategies without overhauling the entire system.
Advanced AI Integration	Implemented a deep learning model that uses classification techniques (e.g., predicting take profit/stop loss levels and success probability classes) rather than traditional regression methods, which are often less reliable in volatile markets. The AI system is trained through backtesting results in MetaTrader 5 and is designed to evaluate live signals in real time, enhancing the decision-making process for executing trades.

Dynamic Parameter Generation & Standardization	Developed methods to compute trading parameters independently of time and price—using ratios, Fibonacci-based techniques, and data standardization interfaces—to ensure consistency and accuracy in the input data fed to the AI model.
Real-Time Data Integration	Seamlessly connected MetaTrader's execution environment with Python/TensorFlow back-end systems via socket communications, facilitating rapid training and prediction cycles. Automated strategy performance tracking, where backtested data is stored and then utilized to continuously refine the AI model.
Impact	This comprehensive platform not only bridges the gap between the trader's intuition and algorithmic implementation but also dynamically prioritizes strong strategies while filtering out weaker ones via an AI-driven scoring mechanism. It represents a significant advancement in automated trading technology, marking a new era in how financial strategies are translated into executable code.
Timeline	MQL5/MQL4 Expertise: Since 2017 Overall Programming Experience: Since 2008 (including PHP, MATLAB, and C++)

Education

M.Sc. in Software Engineering, *Ostim Technical University*, Ankara, Turkey

B.Sc. in Industrial Engineering, *Kharazmi University*, Iran, GPA: 3.7/4.0

Research focused on meta-heuristic algorithms, statistical modeling, and optimization techniques.

Research & Publications

Published	"Adaptive Pareto Simulated Annealing for Trip Distribution Problems" — Presented at CIE 44 and IMSS'14, Istanbul.
Published	"Two-Objective Model in EMS Allocation & Pareto SA Solution" — International Conference on Business & Economics, Tehran.
Under Development	"Predicting Price Movement Using Combined Strategies and Deep Learning"
Under Development	"State Path Framework: A New Paradigm for Algorithmic Trading Strategy Development"
Under Development	"Self-Optimizing Multi-Strategy Trading Management System with Dynamic Signal Scoring"

Certifications

- 2015 ISO 9001:2008 Internal Auditor & Quality Management Systems
- 2014 Microsoft Project (MSP) & Benchmarking
- 2013 Certified in GAMS (Mathematical Optimization Software)
- 2012 Advanced MATLAB Programming Certification
- 2011 Computer Networks Certification

_____ Languages

Persian Native
English Professional
Turkish Advanced
German Familiar

IELTS 7.0