Serhad Yildirim

STUDENT

Profile

Machine Learning Engineer and Backend Developer with a proven track record in building efficient, scalable systems; from reinforcement learning models delivering 1900% simulated portfolio growth to published trading indicators on MQL5.com. Currently completing a Master's in Machine Learning Engineering at KTH, I bring together deep technical expertise with real-world experience in QA and operational leadership. Having progressed from restaurant operations management to engineering backend systems, I thrive on solving complex problems, optimizing workflows, and turning raw data into actionable insights.

Education

Master of Science of Machine Learning in Computer Science, KTH - Kungliga Tekniska Högskolan, Stockholm

AUGUST 2024 — JUNE 2026

Bachelor in Computer Science, Mid Sweden University, Sundsvall

AUGUST 2021 — JUNE 2024

First year in Civil Engineering in Technical Physics, Mid Sweden University, Sundsvall

AUGUST 2020 — JUNE 2021

Employment History

Bar- and Operations Manager, Bremers Restaurang och Bar, Smögen

2017 — 2022

- Progressed from dishwasher to bartender, head bartender- and waiter, gaining comprehensive experience in restaurant operations.
- Directed teams during peak hours, coordinated seating strategies to maximize occupancy, and maintained high service standards under pressure.
- Designed and maintained inventory systems that ensured resources were fresh, accessible, and efficiently used, minimizing waste.
- Collaborated closely with senior staff, including an award-winning head chef, adopting high standards of work ethic and precision.
- Acted as an informal QA tester for the restaurant's digital ordering system, troubleshooting bugs and preventing workflow disruptions during crashes.

Projects

Reinforcement Learning – Market Simulation Project

JUNE 2023 — AUGUST 2025

- Built a simulated market environment using PPO, A2C, and DQN agents to test portfolio strategies on OHLCV data.
- Designed custom reward/penalty functions and applied grid search for hyperparameter optimization.
- Achieved simulated portfolio growth of 1900%, showcasing potential for advanced systematic trading strategies.

Details

Duvbergsvägen 85
Stockholms län
Sweden
+46721840088
serhad14@live.se

Skills

Python

MQL5

C++

Java

MySQL

R

MATLAB

Vue3

Javascript

Languages

Swedish

English

Kurdish (Kurmanji)

Links

Deep Reinforcement Learning Project

MQL5 Profile

Statistical & ML Tools for Market Analysis

NOVEMBER 2020 — PRESENT

- Developed custom MQL5 indicators and algorithms, with several published on MQL5.com.
- Created a GARCH-based volatility indicator to detect shifts in market volatility.
- Currently developing a time-fed rolling window MLP neural network trained on large-scale market data to explore predictive applications.

QA Tester – Foodzone, Smögen

JANUARY 2019 — AUGUST 2021

- Tested Foodzone's restaurant management app in live operations, providing actionable feedback to improve usability and efficiency.
- Contributed to admin panel refinements and workflow optimizations that simplified system use for staff during peak hours.

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