

# Max Matkovski

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## Education

**Georgia Institute of Technology** Atlanta, GA (Remote)  
Master of Science, MS – Computer Science (Artificial Intelligence, Machine Learning) 2026  
Relevant coursework: Relevant Coursework: Probability & Statistics, Linear Algebra, Optimization Methods, Machine Learning, Deep Learning, Time Series Analysis, Algorithmic Trading, Network Science, Natural Language Processing  
Research: Reinforcement Learning for Autonomous Robots (Advisor: Prof. Patricio Vela)

**University of California, Los Angeles** Los Angeles, CA  
Bachelor of Science, BS – Computer Science, Cognitive Science 2023  
Relevant coursework: Data Structures and Algorithms, Python Software Engineering, Operating Systems, Computer Architecture, Database Systems, Machine Learning, Financial Accounting, Venture Capital, Financial Analysis

## Experience

**Ontra Mobility (YC S24) – Transportation SaaS** San Francisco, CA  
**Machine Learning Engineer** 2024 – 2025  

- Built real-time data infrastructure processing 50k–100k daily vehicle telemetry pings through AWS (Kinesis, Lambda, S3), implementing Protobuf→JSON pipelines and PostgreSQL-backed analytics for 2,000+ weekly rides
- Developed geospatial feature engineering and outlier detection methods reducing data noise by ~25%, enabling statistical modeling that improved routing efficiency by 12–18% in high-demand zones

**Zultys – Telecommunications SaaS** San Francisco, CA  
**Machine Learning Integration Engineer** 2023 – 2024  

- Deployed OpenAI Whisper ASR model on AWS EC2, achieving 31% accuracy improvement through systematic optimization of model configuration, VRAM allocation, and inference latency vs. cost tradeoffs
- Built production transcription pipeline with full-stack interface (HTTP, NGINX, JavaScript), defining performance benchmarks and validating system requirements with engineering stakeholders

**Finphil – Fintech Platform** Los Angeles, CA  
**Data Scientist** 2022 - 2023  

- Performed PySpark-based ETL on AWS (S3/Kinesis) and executed A/B tests on user behavior data, improving satisfaction scores by 15%
- Built content-based and collaborative filtering recommendation systems for 90 investment sectors using TensorFlow

## Projects

**Reinforcement Learning Options Market Maker – Quantitative Finance ML Agent**  

- Built a PPO-based reinforcement learning agent for options market making that dynamically adjusts bid–ask spreads under inventory risk and adverse selection, learning from simulated informed and noise trader flow
- Achieved a 5.49 Sharpe ratio, outperforming the Avellaneda–Stoikov baseline by 325% through adaptive spread control and toxic order flow avoidance.

**Autonomous AI Phishing Detection System – Cybersecurity ML Agent [Here] Link [Here]**  

- Built autonomous email security agent using Claude 4 and Model Context Protocol that processes 2,800+ daily emails with <5% false positive rate, implementing intelligent cost optimization that reduced API calls by 60%.

## Skills & Interests

**Technical:** Python, SQL, C++, Statistical Modeling, Time Series Analysis, Machine Learning, Optimization, PyTorch, TensorFlow, scikit-learn, AWS, PostgreSQL, Excel

**Quantitative:** Backtesting, Factor Models, Portfolio Optimization, Hypothesis Testing, Walk-Forward Validation, A/B Testing

**Language: Native:** English | Proficient: Hebrew, Spanish, Portuguese, Russian | Basic: Farsi, Italian

**Interests:** Quantitative Finance, Algorithmic Trading, Poker, Backgammon, Golf, Ice Hockey, Solo Travel