

Alexander Rom

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EDUCATION

University of Southern California, Viterbi School of Engineering Aug. 2025 - Dec. 2026
Master of Science, Financial Engineering GPA 3.74 / 4.0

- **Coursework:** Optimization, Probability Theory, Derivatives Pricing, Machine Learning for Data Science
- Awarded Dean's Master's Scholarship (maximum merit-based award)

University of San Francisco Aug. 2022- May 2025
Bachelor of Science, Financial Economics & Minor Computer Science GPA 3.81 / 4.0

- **Coursework:** Financial & Applied Econometrics, Micro & Macroeconomics, Statistics, Real Analysis, Linear Algebra & Probability, Data Structures & Algorithms, Options and Futures
- **Fed Challenge 2023:** Led university's official 5-person team; presenting independent monetary policy strategy to Federal Reserve officials

EXPERIENCE

Quantitative Research Consultant Los Angeles
Insider Ownership Index Sep. 2025 - Present

- **Derived return-maximizing insider ownership** level for S&P 500 firms (5- and 7-year forward returns) using cross-sectional and panel regressions; the resulting curve underlies Inside Ownership 100 index weights
- **Performed stress testing** and scenario analysis on the index with optimal insider-ownership weights to evaluate return stability across market regimes and validate signal robustness (Python)

Teaching Assistant San Francisco, CA
University of San Francisco Jan. 2024 - May 2025

- **Taught quantitative methods** (regression analysis and optimization) to 60+ economics students; average course performance rose 5% across semesters, for Intermediate Microeconomics and Applied Econometrics

Data Analyst Intern San Francisco, CA
Bridges and Barriers Advisory Services May 2024 - Sep. 2024

- **Engineered Python pipelines** to clean and validate large-scale financial and market datasets, converting raw inputs into structured trade-ready data; reduced preprocessing time by 50+ hrs/month and accelerated model deployment for investment analysis
- **Collaborated with clients**, identifying inefficiencies in operational workflows; implemented quantitative automations that improved data accuracy, cut manual work, and enhanced investment analysis

Special Forces Medic Estonia
Estonian Special Forces Command Sep. 2021 - Jul. 2022

- Selected through a 0.7% acceptance rate to serve as Special Forces Medic; demonstrated leadership and strategic decision-making under pressure with limited information while working in high-performing team

PROJECTS

- **Built systematic options-driven volatility strategy** using PCR, VIX, skew, and macro signals; computed cross-maturity option-implied distributions to quantify risk-skew and tail exposure, and applied systematic risk controls that capped portfolio drawdowns at 20%, generating a 35% annualized return (Python)
- **Banking Competition in the Euro Area (Econometrics Paper):** Built Hausman-Taylor model to evaluate impact of banking competition on personal loan interest rates across each Euro Area country (Link)
- **Time-Series Analysis of Treasury Bond ETF (Econometrics Paper):** Engineered ARIMAX and GARCH hybrid model for yield volatility; achieved 60% out-of-sample accuracy and 15% 6-month strategy return.

SKILLS

- **Languages:** Russian & Estonian (native speaker), English (proficient),
- **Technical:** Python (NumPy, Pandas, Scikit-learn, Matplotlib), Java, Stata, MATLAB, SQL, Microsoft Excel
- **Certifications & Online Coursework:** Practical Python for Algorithmic Trading (LinkedIn Learning); Bloomberg Finance Fundamentals; Financial Accounting and Capital Markets (University of Cambridge)