

# Alexander Rom

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## EDUCATION

<b>University of Southern California, Viterbi School of Engineering</b>	Aug. 2025 - Dec. 2026
<b>Master of Science, Financial Engineering</b>	GPA 3.74 / 4.0
► <b>Coursework:</b> Optimization, Probability Theory, Derivatives Pricing, Machine Learning for Data Science	
► Awarded Dean's Master's Scholarship (maximum merit-based award)	
<b>University of San Francisco</b>	Aug. 2022- May 2025
<b>Bachelor of Science, Financial Economics &amp; Minor Computer Science</b>	GPA 3.81 / 4.0
► <b>Coursework:</b> Financial & Applied Econometrics, Micro & Macroeconomics, Statistics, Real Analysis, Linear Algebra & Probability, Data Structures & Algorithms, Options and Futures	
► <b>Fed Challenge 2023:</b> Led university's official 5-person team; presenting independent monetary policy strategy to Federal Reserve officials	

## EXPERIENCE

<b>Quantitative Research Consultant</b>	Los Angeles
<b>Insider Ownership Index</b>	Sep. 2025 - Present
► <b>Derived return-maximizing insider ownership</b> 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	
► <b>Performed stress testing</b> and scenario analysis on the index with optimal insider-ownership weights to evaluate return stability across market regimes and validate signal robustness (Python)	
<b>Teaching Assistant</b>	San Francisco, CA
<b>University of San Francisco</b>	Jan. 2024 - May 2025
► <b>Taught quantitative methods</b> (regression analysis and optimization) to 60+ economics students; average course performance rose 5% across semesters, for Intermediate Microeconomics and Applied Econometrics	
<b>Data Analyst Intern</b>	San Francisco, CA
<b>Bridges and Barriers Advisory Services</b>	May 2024 - Sep. 2024
► <b>Engineered Python pipelines</b> 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	
► <b>Collaborated with clients</b> , identifying inefficiencies in operational workflows; implemented quantitative automations that improved data accuracy, cut manual work, and enhanced investment analysis	
<b>Special Forces Medic</b>	Estonia
<b>Estonian Special Forces Command</b>	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)