Thomas Dudzik

tdudz | tdudz | tomdudzik.com | tdudz97@gmail.com

Education

Massachusetts Institute of Technology (MIT)

M.Eng. in Computer Science – 5.0/5.0 GPA *Class of 2020*
- Completed thesis with the MIT Biomimetic Robotics Lab

S.B. in Computer Science, Mathematics (double major) – 4.9/5.0 GPA *Class of 2019*
- Honor Societies: Eta Kappa Nu, Tau Beta Pi

Experience

Quant Dev at Selini Capital (New York) *Jun 2023 - present*
- Algorithmic trading in the cryptocurrency space with a focus on high-frequency strategies.

Quant Dev at MGNR (New York) *Mar 2021 - May 2023*
- Carried out quantitative research and development for crypto spot and derivatives high-frequency trading across all major centralized and decentralized exchanges.
- Performed signal research and implementation, param tuning, research library and tooling development, exchange integrations, trade monitoring and operations, and infrastructure deployment.
- Re-architected latency-critical microservices from Python to Rust, reducing tick-to-trade latency down from double-digit millis to sub-millisecond.

Quant Dev at Vatic Labs (New York) *Sep 2020 - Jan 2021*
- Contributed to in-house quantitative research library and developed market data tools for processing live and historical data with a focus on post-trade analysis.

Software Eng Intern at Zoox (San Francisco) *Summer 2019*
- Developed and patented a novel computer vision approach for classifying and understanding dynamic environments for monocular depth estimation aboard autonomous vehicles using a semi-supervised convolutional neural network.

Markets Analyst Intern at J.P. Morgan (New York) *Summer 2018*
- Improved the bank's price discovery algorithm for G10 FX forwards via statistical lead/lag analysis of broker time-series data and developed a chatbot to parse broker quotes in realtime using NLP and machine learning techniques.

Publications

Dudzik, Thomas et al. (2020). "Robust Autonomous Navigation of a Small-Scale Quadruped Robot in Real-World Environments". In: *2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pp. 3664–3671. DOI: 10.1109/iros45743.2020.9340701.

Skills

Languages:	Python, Rust, C++, C, Solidity, Typescript
Tools:	AWS, Linux, Git, Grafana, Pandas, Protobuf, ZMQ
Subjects:	algorithmic trading, HFT, high-throughput and low-latency software, distributed systems, probability and statistics, machine learning, web3, DeFi, MEV