Samuel Meshoyrer

sam [at] [last_name].com

EXPERIENCE

Morgan Stanley New York, NY
Technical Lead, *Trading Risk Controls – Algorithmic Trading* Aug. 2018 – Mar. 2021

- Led project to develop process (C++) which monitors swap flow and proactively acquires short-sell stock locates as part of US swap aggregation regulatory requirements
- Subject matter expert of the Dynamic Limits Allocator (C++), an enforcer of in-band aggregate notional value limits by modeling client spending and budget as a resource allocation problem
- Expanded global footprint of DLA and consolidated several deployments to better capture clients' full equity flow
- Led team across New York, Montreal, Budapest, and Shanghai to widely increase functionality of application while decreasing average operational latency from 3ms to 0.5ms through multithreading and software rearchitecting
- Coordinated the creation of an automated testing suite (Python) between development, monitoring, and integration teams

Geneva Energy Markets New York, NY
Software Engineer July 2017 – July 2018

- Developed position management software (C#) capable of aggregating positions from multiple exchanges, reconciling over-the-counter trades, and generating market-on-close schedules
- Created an internal trading tool (C#) and accompanying GUI for on-the-fly reconfiguration which enabled seamless, "one-click" transfer of position between options and futures books
- Administered database and developed several robust extract-transform-load pipelines using triggers (SQL) to supplement position management software
- Oversaw technical compliance (EMIR, MiFID II, Basel III) and created automated systems (Python, C# Windows services) for position and audit trail reporting

Princeton University, Department of Economics Princeton, NJ
Research Consultant, *Free Law Project* Jan. 2016 – May 2018

- Constructed text-based authority measures on labor union contracts and merged them with data on state labor laws and NLRB cases
- Performed analysis and machine prediction (Python) of judge decision quality using the text of appellate court cases
- Scraped case sites (LexisNexis, Westlaw) to create open legal corpus (MongoDB)

Columbia University, Department of Computer Science New York, NY
Teaching Assistant, *Computing in Python – Class size: 200* Sept. 2016 – May 2017
Teaching Assistant, *Data Structures in Java – Class size: 350* Jan. 2015 – May 2016

- Worked with instructor to create course curriculum, homework, and exams
- Handled administrative duties for the course and managed the other teaching assistants
- Led recitations which reviewed class material and previewed advanced coursework

EDUCATION

Columbia University, The Fu Foundation School of Engineering and Applied Science New York, NY
M.S. in Computer Science – *Software Systems* Expected May 2024
Emphasis on distributed systems, operating systems, and software engineering, GPA: 4.0

B.S. in Computer Science – *Intelligent Systems* May 2017
Minor in Applied Mathematics
Emphasis on machine learning, data science, and natural language processing

TECHNICAL SKILLS

Programming Languages: C++/C, Python, C#, SQL, Bash, Haskell, Java, Go
Technologies: Large-scale distributed systems, Internet protocols, Object-oriented design, Concurrent & Event-driven computing, Linux Kernel Development, Database Administration Unix, Windows, Git, Perforce