

Sam Pomerantz

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Portfolio:
<https://sampomerantz.me>

EXPERIENCE

Amazon Web Services, New York, NY

August 2023 – Present

Software Development Engineer

- Designed, implemented, and launched features aimed at expanding Glue Data Quality outside the bounds of Spark DataFrames. New capabilities include measuring and governing the size, date, uniqueness, and checksum of files from various AWS sources.
- Improved Spark's S3 read throughput by 12x using multi-threading and caches. Resulted in a 30% reduction in job runtime.
- Architected core infrastructure for AWS Zero-ETL, a fully managed service enabling real-time data integration and replication between 10+ operational databases and analytics platforms like S3, DynamoDB, Redshift, Salesforce, Google BigQuery and more.
- Built microservice RESTful APIs in Java (Create, Modify, Delete) managing cross-region customer integrations in real-time.
- Engineered zero-touch DNS & automated region launch infrastructure, SSL/HTTPS certification provisioning, Network / Application Load Balancers for traffic routing, and service expansion over 15+ regions in Typescript with the AWS CDK.
- Reduced legacy Java/Scala API's 90th percentile latency by over 60% using multi-threaded and distributed system techniques.

Amazon, Seattle, WA

May 2022 – September 2022

Software Development Engineering Intern

- Deployed a system to manage and provide real-time access to aggregated customer information for 50,000+ Prime Student members to various Prime analytics services using CloudFormation, DynamoDB, Lambda, Step Functions, SQS, and more.
- Collaborated with the Prime Student team to integrate the system into two live Amazon.com checkout locations.

The LegalTech Fund, Boston, MA

November 2020 – September 2021

Software Engineering Analyst Intern

- Constructed a scalable database and management system on Amazon AWS, tracking 300+ potential investments for the fund.
- Implemented a system in Python and Java to detect, categorize, and push news alerts regarding 50+ tracked companies.
- Saved 20 hours a week of labor by automating the financing directory in Python, tracking rounds and funding information.

Apollo, New York, NY

June 2020 – October 2020

Software Engineering Analyst Intern

- Implemented various webhooks and APIs in Java to import and analyze data from 100+ NASDAQ listed tickers using Quandl.
- Analyzed large-scale historical stock data looking for patterns and developing indicators using Python, Pandas, Selenium, and Machine Learning (AutoGluon, TensorFlow, etc). Improved run-time by more than 90% using a parallel systems approach.

PROJECTS & LEADERSHIP

Louvain Stock Clustering, *Data Visualization Project in Python*

April 2023 – June 2023

- Designed a Python application to visualize relationships between 2,000+ stocks using clustering algorithms and network theory.
- Created a parallelized process to analyze 10,000+ relationships scraped from popular websites, reducing compute time by 75%.
- Published an interactive web interface for exploring stock connections live: <https://sompom100.github.io/StockClustering/>.

Unusual Volume Detector, *Web Application in Python and JavaScript*

July 2020 – December 2021

- Developed a Python program which retrieves historical data from 500+ NYSE stocks and detects significant volume variance.
- Produced a visualization website for the program in React receiving over 60,000 viewers per week upon launch and ranking #3 on Google Search. The website is automatically updated via a Raspberry Pi and available at: <https://unusualvolume.info/>.

Options Analyzer, *Desktop Application in Python*

March 2020 – August 2020

- Constructed a series of programs in Python which display market and derivatives data as interactive 3D graphs and heat maps.
- Facilitates an understanding of derivative activity behind any given stock alongside helpful visualizations in under 10 seconds.

Boy Scouts of America, Wilmette, IL

September 2010 – July 2020

Eagle Scout, National High Honor Society Vice President, Senior Patrol Leader

TECHNICAL SKILLS

Programming: Java, Scala, Python, Javascript / Typescript, C#, Object-Oriented Programming, Functional Programming

Additional: Git, AWS, SQL, NoSQL, Docker, Linux, Data Visualization / Analysis, Project Management, System Design, Distributed Systems, Microservices, API Design, Spark, HTML/CSS, DevOps, Junit, Mockito, Spring Boot

EDUCATION

Boston University, School of Computing & Data Science

May 2023

Bachelor of Arts in Computer Science

GPA: 3.84/4.00

Boston University, Questrom School of Business

Bachelor of Science in Business Administration, concentration in Data Analytics