

Joshua Silverberg

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EXPERIENCE

Software Engineer

Bloomberg LP, New York, NY

August 2023 – Present

- Building distributed data streaming platform ingesting and caching market data from every major exchange worldwide (2.5+ GB/s) with minimized latency and guaranteed uptime across 1,200+ servers
- Served as primary engineer coordinating across 4 teams for migration of high-volume streams comprising 40% of ingested market data to more reliable architecture; identified performance bottleneck using Perf profiling and delivered 20% speedup required for production volumes
- Delivered technical presentations on stream migration project to engineering teams in NY and Frankfurt offices and documented migration process for future maintainability
- Restructured 700k+ LOC C++ streaming platform codebase by packaging stable core components into new library, speeding up package publishing time and development cycle duration by 7x
- Developed comprehensive integration test suite from scratch for critical tick publishing service, improving reliability by enabling validation of previously untested routing and business logic functionality
- Architected and implemented distributed service for streaming across data centers, managed remote contractor across 7-hour time difference, and coordinated with stakeholders to deliver working MVP
- Designed and delivered technical presentation series on core market data infrastructure to 100+ engineers across NY, Frankfurt, and London offices, independently mastering complex distributed system to serve as knowledge resource for global stakeholder teams

Software Engineering Intern

May 2022 – July 2022

Bloomberg LP, New York, NY

- Built two full-stack Bloomberg Terminal functions (Python/TypeScript) for ETF pricing pipeline monitoring and admin controls, deployed to production and used by authorized internal stakeholders
- Designed and implemented ML dataset generator, scraping 10GB+ of bond market data from internal APIs to support experimental deep learning-based pricing model

PROJECTS

Netwrk – Contact Management Mobile App

2024 – Present

github.com/JoshSilverb/netwrk

- Built and deployed full-stack cross-platform mobile app for intelligent contact management using React Native/Expo frontend and Python Flask backend on AWS Elastic Beanstalk
- Implemented natural language querying for contacts using semantic search over OpenAI embeddings with pgvector, and geographic proximity sorting using PostGIS
- Architected scalable backend with PostgreSQL database, JWT authentication, S3-backed image storage with presigned URLs, and load-balanced HTTPS proxy serving production traffic
- Drove product development through user feedback cycles, rapidly iterating on the project roadmap, and implementing new features and bug fixes from it based on user needs

EDUCATION

University of Michigan, Ann Arbor

April 2023

BSE in Computer Science, Summa cum Laude

President of Michigan Data Science Team (largest AI/ML club on campus)

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, C++, SQL, Bash, HTML/CSS
Frontend/Mobile: React Native, Expo, Tamagui, Tailwind CSS
Backend/Database: Flask, PostgreSQL, SQLAlchemy, pgvector, PostGIS, JWT Auth
Infrastructure: AWS (Elastic Beanstalk, S3, Lambda, Route53), Kafka
DevOps: Claude Code, Copilot, Docker, Git, CMake, Pytest, GTest, Grafana, Logscale, Perf