

# 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