BENJAMIN LERNER

26621 Huntington Rd, Huntington Woods, MI 48070

EDUCATION

University of Michigan Expected - June 2026

Bachelor of Science in Computer Science & Bachelor of Arts in Spanish

Ann Arbor, MI

Relevant Coursework: Advanced Data Structures and Algorithms, Software Engineering, Advanced Database Management Systems, Operating Systems, Computer Organization, Web Systems, UI Development, Machine Learning, Statistics

EXPERIENCE

Comcast May 2025 – August 2025

Data Engineer Intern, Data Platforms

Denver, CO

- Built an end-to-end materialized view refresh pipeline on Trino leveraging Airflow, Kubernetes Helm, and Elasticsearch, enabling analysts to submit JIRA-based query acceleration requests and automatically generate or schedule materialized views based on table update frequency, improving data availability and cutting average query latency by over 70%.
- Engineered advanced Python error-handling and monitoring systems that parsed Airflow and Trino logs from AWS S3, identified failed refreshes in real time, and produced automated email alerts with root-cause diagnostics and detailed recovery instructions, reducing incident resolution time from hours to minutes across multiple production environments.
- Developed a custom C# ODBC driver for Trino (ADO.NET) to replace a \$1.5M proprietary connector, integrating seamlessly with internal .NET and BI tool workflows, improving data reliability and connectivity while partnering with analytics and ML teams to validate performance benchmarks, ensure system stability, and streamline cross-platform adoption.

Decido May 2024 – July 2024

Software Engineer Intern, ML Adtech

Tel Aviv, Israel

- Built and deployed backend FastAPI microservices powering a predictive ML model that optimized ad buying and selling decisions, serving real-time client data with sub-200ms latency and improving ad campaign responsiveness across production environments.
- Developed statistical anomaly detection pipelines with Pandas and NumPy to remove outliers and retrain models on rolling five-day intervals, increasing ad performance forecasting accuracy by 25% while stabilizing model outputs.
- Integrated secure OAuth 2.0 authentication and role-based access control for partner-facing APIs, validating endpoints through Swagger testing to ensure reliability, compliance, and smooth deployment across internal and client systems.

Society of Hispanic Professional Engineers (SHPE)

September 2023 - Present

Mentor

Ann Arbor, MI

- Led STEM outreach and mentorship initiatives advancing diversity in technology, organizing workshops, hosting study sessions, and tutoring students through core Computer Science courses such as Data Structures, Algorithms, and Software Design.
- Provided weekly one-on-one and group mentorship sessions focused on coding fundamentals, technical interview preparation, and long-term career development, fostering academic confidence, leadership skills, and sustained technical growth.

PROJECTS

Automated Trading Platform | Python, FastAPI, PostgreSQL, SQLAlchemy, AsyncIO, NLP

2024

- Built and deployed a high-performance FastAPI microservice to ingest and process live financial data asynchronously, storing outputs in PostgreSQL for low-latency algorithmic backtesting, analysis, and trading signal generation.
- Implemented transformer-based NLP models for real-time sentiment analysis of financial news and social media streams, improving risk-adjusted portfolio returns by 12% and driving actionable investment insights.

Jammr – Musician Matching Platform | React.ts, Firebase, Firestore, Node.js, Figma

2025

- Developed a full-stack mobile application connecting over 100+ musicians for collaboration and jam scheduling, featuring real-time chat, secure authentication, and interactive location-based matching with intuitive UI design.
- Architected a Firestore and Cloud Functions backend achieving sub-200ms synchronization latency, with an adaptive matching
 algorithm that increased user compatibility scores by 35% and enhanced session engagement metrics.

Database Query Optimization Engine | Java, JDBC, Oracle SQL

2024

- Engineered a cost-based SQL query optimizer that automatically tuned indexes, joins, and execution plans, boosting query throughput by 45% on benchmarked datasets and reducing overall compute cost.
- Integrated schema-aware indexing and runtime performance analytics via JDBC instrumentation, enabling adaptive query refinement across diverse workloads and improving developer visibility into execution efficiency.

SKILLS

Programming Languages: C++, Python, SQL, C#, Java, Spring Boot, C, JavaScript, TypeScript, HTML/CSS **Tools**: Trino, FastAPI, Node.js, Docker, AWS, Spark, Airflow, Pandas, NumPy, PyTorch, Linux, Git, JIRA, Confluence