# Xiaomin Liu

U.S. Citizen | 347-348-8327 | xl4624@nyu.edu | linkedin.com/in/xiaomin-liu | github.com/xl4624

## EDUCATION

| **New York University** | **Dec 2026** |
|---|---|
| Bachelor of Arts in Computer Science | **GPA**: 3.7 / 4.0 |

## EXPERIENCE

**Jane Street**      **May 2026 – Aug 2026**
Software Engineer Intern (Incoming)      New York, NY

**Apple**      **Jan 2026 – Apr 2026**
Machine Learning Compiler Engineer Intern (Incoming)      Sunnyvale, CA
- Working on the MLIR compiler for the Apple Neural Engine to accelerate on-device AI inference across billions of devices

**Google**      **Aug 2025 – Nov 2025**
Software Engineer Intern      Sunnyvale, CA
- Implemented internet flow cache eviction in C++ to offload packet processing to SmartNICs for 300K concurrent flows
- Designed a hybrid LRU/LFU policy that retains long-lived, high-throughput flows while removing stale connections
- Optimized flow eviction with a B-tree multimap buffer of low-scoring candidates, reducing CPU cycles per eviction by 57%

**Meta**      **May 2025 – Aug 2025**
Software Engineer Intern      New York, NY
- Built a Python LLM agent with custom tools to help engineers trace data lineage and type propagation in their SQL tables
- Developed a tool to derive a column's semantic types (FBID, IGID, etc.) from raw signals and auto-generate table schemas
- Wrote Hack scrapers and Dataswarm pipelines to process over 10,000 internal posts and comments for training and evals

**Niantic**      **May 2024 – Aug 2024**
Software Engineer Intern      Bellevue, WA
- Processed coastline data with Java to generate ocean maps used to filter out 8 billion unreachable Pokémon spawnpoints
- Reduced Pokémon GO's weather API calls by 78% and saved $280K per year by excluding updates in ocean weather tiles
- Wrote a quadtree merging algorithm in Apache Beam to normalize and compress the geospatial ocean dataset by 99.1%

**Vantage** ($25M Series A, a16z-backed)      **July 2023 – Oct 2023**
Software Engineer Intern      New York, NY
- Launched Azure Active Resources, a Ruby on Rails feature that enables filtering on $4M in cloud resources by metadata
- Developed a fault-tolerant Temporal pipeline that updates 100,000+ PostgreSQL records across 30 Azure services daily
- Embedded multi-series line graphs into user dashboards with JavaScript to visualize cost dependencies in related resources

## OPEN SOURCE CONTRIBUTIONS

**P4 MLIR Compiler (p4lang/p4mlir)** | C++, MLIR, LLVM, P4
- Built constant folding and canonicalization passes for P4's MLIR backend and upstreamed TableGen patches to LLVM
- Implemented graph optimizations to prune dead parser states and merge linear chains, reducing match-table footprint

## SKILLS

**Programming Languages**: C++, Rust, Python, Java, JavaScript, SQL
**Technologies**: GCP, AWS, PyTorch, MLIR, Temporal, gRPC, Linux, Bash
**Interests**: Systems Programming, Compilers, Distributed Systems, Developer Tooling