Xiaomin Liu

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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, SQL
Technologies: PyTorch, MLIR, Temporal, gRPC, GCP (BigQuery, Spanner, Dataflow), Linux
Interests: Systems Programming, Compilers, Distributed Systems, Developer Tooling