Stanley Lin

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Education

Emory University May 2027
Bachelor of Science in Computer Science and Mathematics *Atlanta, Georgia*

Experience

Tencent Shenzhen, China
Software Development Engineer Intern *May 2025 – August 2025*

- Engineered real-time budget cap signal system by building **Kafka/Flink streaming pipeline** with **PostgreSQL** persistence, achieving **35% latency reduction** and eliminating **45% of zero-budget campaign retrievals** for Sponsored Ads platform
- Implemented exactly-once semantics via **Apache Flink** transactional sinks to prevent revenue leakage from post-budget impressions, enabling sub-second budget cap propagation across distributed ad-serving services.
- Improved production reliability by embedding budget state directly into the search index through a **Kotlin**-based solution, removing downstream filtering overhead and allowing campaigns to resume instantly upon budget increases without manual intervention.

XiaoMi Technology Beijing, China
Software Development Engineer Intern *May 2024 – September 2024*

- Redesigned A/B testing traffic allocator serving **200+ engineers** and **500+ concurrent experiments** using **SpringBoot** and **Apache Ignite**; unified five departmental SDKs into a single API to streamline cross-team experimentation.
- Achieved 70× performance improvement by introducing **read-write separation** and **distributed SQL-backed caching**, reducing P99 latency from 363ms to 5.2ms and cutting database load by 99%; optimized SDK memory footprint by 88%
- Built a **snapshot** coordination service with **atomic** cache swapping every 5 minutes to ensure consistency during refresh cycles, maintaining 99.9% uptime across three disaster recovery drills with zero data inconsistency.

Research

EEG Foundation Model | *Python, PyTorch, Transformers, MNE, Captum, SafeTensors* May 2025 – Present

- Built self-supervised **EEG foundation model** using encoder, CSM embedder (NeuroGPT), and **GPT-2/DistilGPT-2** decoder with causal attention to enable pretraining on unlabeled brain signals and downstream fine-tuning for classification task
- Engineered end-to-end **data pipeline** using MNE-based conversion, 19-channel 10-20 montage preprocessing, overlapping temporal chunking, and attention-masked collation to support efficient transformer training on raw recordings
- Established a reproducible evaluation framework with **K-fold** cross-validation, early stopping, **SafeTensors** checkpointing, and **DeepLIFT** interpretability to generate stable decoding metrics and spatial-temporal importance maps

Emory NLP Lab With JenAI | *Python, PyTorch, Flask, React, Docker, LangChain* May 2025 – Jan 2026

- Fine-tuned **Llama-2-7B** using **QLoRA** (4-bit quantization, rank-32) on Jenkins domain knowledge, achieving **45%** accuracy improvement (ROUGE-L: 0.52→0.75) on technical troubleshooting queries while training only **1.7% of parameters**
- Built **ETL pipeline** scraping **3,200+** Q&A pairs; reduced noise by **40%** through deduplication and quality filtering
- Deployed **LangChain** chatbot with conversational memory; quantized to **GGML** enabling CPU inference at **15 tokens/sec**
- Developed **Flask + React TypeScript** full-stack app for chat interface with **Docker Compose**; achieved one-command setup

GraphQL Query Generation API | *Python, FastAPI, OpenAI, GraphQL, REST, Docker, Git* Sep 2024 – Jan 2025

- Engineered **NL-to-GraphQL translation system** using **OpenAI GPT-4 API** and **LangChain** with **schema-driven prompt engineering**, achieving 80%+ accuracy on clinical cohort queries through **few-shot learning** and contextual examples
- Designed a resilient **LLM** output validation pipeline with three-layer fallback parsing (structured JSON → truncation repair → regex extraction) and **Redis** result caching, increasing parse success rate to 95%+ and reducing API latency by 90%

Technical Skills

Languages: Java, C++, Python, SQL, Bash
Frameworks & DevOps: Node.js, RESTful, gRPC, GraphQL, AWS, Docker, Kubernetes, Git, Linux, Nginx, ELK Stack
Databases & AI/ML : PostgreSQL, MongoDB, Redis, Kafka, ZooKeeper, PyTorch, LLM, LangChain, MCP, BGP, VLAN
Technical Skills: Data Structures & Algorithms, OOP, System Design, Computer Networks, Distributed Systems, CI/CD, Agile
Certifications & Awards: AWS Certified Developer-Associate (DVA-C02), 2025 ACM-ICPC Southeast Regional 9th Team