Lauren Lee

Brooklyn, NY (917) 922-9915 lauren.lee.ll2243@yale.edu laurenwylee laurenwylee

Education

Yale University New Haven, CT

B.S/M.S. in Computer Science *Expected May 2027*

Coursework: Machine Learning, Compilers & Interpreters, Algorithms, Discrete Math, Systems Programming, Object Oriented Programming, Data Structures, Linear Algebra, Building Game Engines

Experience

Machine Learning Research Intern May 2025 – Aug. 2025

JC STEM Lab of Data Science Foundations, HKUST *Hong Kong, CN*

- Improved multi-hop question answering accuracy by building a dynamic retrieval-augmented generation (RAG) pipeline with a hybrid retriever (dense + BM25)
- Reduced hallucinations and strengthened factual grounding in LLM responses by tuning retrieval/generation hyperparameters (e.g., top-k, surprisal threshold, stopword multipliers)
- Designed a surprisal-based retrieval trigger that dynamically invoked retrieval based on token-level uncertainty, incorporating stopword-aware weighting

Program Evaluation Intern Jul. 2023 – Aug. 2023

Coalition For Asian Children and Families (CACF) *New York, NY*

- Reviewed and analyzed documentation from CACF's *Healing Ourselves, Healing Our Community* workshops, which developed tools for youth healing from racial trauma
- Authored private and public-facing reports for City Hall leaders, member organizations, funders, internal staff, and prospective workshop facilitators

Data Intern Jul. 2022 – Feb. 2023

Radicle *New York, NY*

- Developed Python scripts (pandas, NumPy) to identify startups with acqui-hire potential from tens of thousands of emerging companies across industries
- Built an interactive data visualization dashboard in Streamlit with six customizable multi-graph views, enabling analysts to generate client-ready insights rapidly
- Created new company-wide metrics to measure acquisition signals and engineered an in-house Python tool to automatically extract these metrics from startup datasets

Projects

Yale Clubs | *Developer, Yale Computer Society* Oct. 2024 – Present

- Built a club directory application serving 12,000+ Yale students, using Next.js, React, Tailwind CSS, TypeScript, and Python
- Implemented efficient search with tries for tag-based filtering and designed interactive modals for club details
- Implemented a scalable follow/unfollow mechanism using MongoDB document relations and indexed queries to manage user subscriptions and club tracking efficiently

DeepLearn | *Developer, HackMIT* Sept. 2024

- Won first-place sponsor prize for best use of Llama
- Created an interactive learning platform that processes user-uploaded videos with real-time transcription via Whisper and image segmentation/classification via NVIDIA SegFormer
- Applied image hashing and scene detection to identify key frames and enrich transcriptions with visual context

Aggregate Grocery Shopping Web App | *Developer, Stuyvesant High School* Jun. 2023

- Built a Flask-based web app with Tailwind CSS and JavaScript to aggregate and compare produce prices across local grocery chains
- Leveraged public APIs, network inspection, and web scraping to source and normalize data from New York's top three grocery companies

Skills

Technical: *(Proficient)* Python, Java, C, C++, Git, HTML/CSS, *(Familiar)* OCaml, TypeScript, JavaScript, React, Rust, MongoDB, SQL, Svelte

Spoken Languages: Mandarin; 2x Richard U. Light Fellow, Recipient of NYS Seal of Biliteracy in Chinese