

Aimee Zeng

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EDUCATION

University of Illinois Urbana-Champaign (UIUC) <i>Master of Computer Science (MCS) — Siebel School of Computing and Data Science</i>	Expected May 2027
The University of Illinois Urbana-Champaign (UIUC) <i>Bachelor of Liberal Arts and Science; Major in Statistics & Computer Science</i>	2022 – 2025 GPA: 3.93/4.0

TECHNICAL SKILLS

Focus: AI Integration, machine learning, statistical modeling, predictive analytics, optimization

Programming Languages: Java, C++, Python, SQL, R, Spark, QGIS, PyTorch

Research: Geospatial AI, Climate Downscaling, Causal inference, factorial design methods

WORK EXPERIENCE

AI Engineer Intern, GlobiFYE	May 2026 – Sep. 2026
- Built a real-time voice agent pipeline (STT → LLM → TTS) for automated sales calls. - Benchmarked STT/LLM/TTS providers against a sub-1.5s latency budget. - Designed the Supabase schema and persistence layer for recordings, transcripts, and call analysis. - Integrated SIP telephony to extend the pipeline from browser sessions to live inbound/outbound phone calls. - Migrated the LLM layer from the Groq SDK to LangChain without changing downstream callers.	
Machine Learning Intern, Butterflo Inc	Jan. 2026 – May 2026
- Build Python pipelines for data ingestion, model training, and inference on large-scale rental property data. - Train and tune XGBoost models with Optuna, deploying the best model for inference. - Extend rent prediction from metro-level to cluster-level geographies, improving spatial modeling granularity.	
Machine Learning Intern, AIA Group	May 2025 – Aug. 2025
- Built medical lapse and claims prediction models (Random Forest, GLM/Logistic), achieving ~0.81 AUC. - Identified key risk drivers via hypothesis testing and produced risk scores to support client retention. - Developed a Shiny app to replicate liability cash flows, optimizing asset weights under risk constraints.	

PROJECTS

Machine Learning Researcher, Climate Downscaling with Foundation Embeddings	Jan. 2026 – Present
- Built a recursive probabilistic downscaling pipeline from 25 km ERA5 precipitation to 1.5625 km resolution using AlphaEarth embeddings and 800 m PRISM. - Developed Conditional Flow Matching and baselines for multi-scale 2× super-resolution and ensemble prediction. - Evaluated models with RMSE, CRPS, coverage, and spread-skill and used PRISM ground truth for validation.	
Undergraduate Statistics Researcher, Mixed-Effects Analysis of Phthalates	Jun. 2025 – Present
- Applied factorial balancing weights to estimate causal effects of phthalate exposures on menopausal hot flashes. - Developed a novel framework for estimating the main effects and interaction effects of multi-level factors. - Extended the framework to incomplete designs with unobserved treatment combinations; validated via simulation and bootstrap inference.	
Data Engineer, Bird Viewer - Bird Sighting Recommendation Platform	Jan. 2025 – Apr. 2025
- Designed and implemented a MySQL relational database for users, bird sightings, groups, and hotels. - Built stored procedures and SQL triggers to automate account deletion and group lifecycle management. - Developed a Django REST API supporting full CRUD operations, search, and location-based recommendations.	
Web Development, Hermes - Financial Data Visualization and Alert Platform	Aug 2024 – Dec 2024
- Built a Django + React platform for real-time financial data visualization and authentication. - Implemented interactive charts for equities, crypto, and economic indicators using Chart.js.	