AUDREY LEONG

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EDUCATION

Columbia University *M.S. in Computer Science*   Expected Dec 2025
ETH Zurich *Post Baccalaureate Studies in Computer Science/Security*   Sep 2022 - Feb 2024
Columbia University *B.A. in Computer Science*   Sep 2018 - May 2022
Coursework: NLP, UI/UX, Computer Vision, GenAI Design, Cloud Computing, Agentic Systems, Information Security

TECHNICAL SKILLS

- Technical: Python, C/C++, HTML/CSS/JS, PostgreSQL, Figma, QGIS, LaTeX, UI/UX, HCI, GenAI, Ruby/Rspec
- Tools: AWS (EC2, S3), Docker, Flask, OpenAPI, Github, LLM application, Agile/Jira

WORK EXPERIENCE

Adobe Inc.   San Jose, CA
Software Development Intern   May 2025 - Aug 2025
- Engineered Lightroom "Best Photos" by deploying a real-time ML inference system and fully redesigning backend infrastructure and production pipelines, enabling seamless integration and achieving $800K in annual cost savings.
- Developed evaluation frameworks in Flask to benchmark ML model performance on feature-specific behaviors, integrating automated tests in Python and Ruby to validate model quality and production readiness.

Columbia University   New York City, NY
Course Assistant for COMS 4170 UI Design   Jan 2022 - Jun 2022, Present
- Mentored over 40 Master's students on semester-long projects, with weekly advising on UI/UX practices, iterative design, and full-stack implementation with HTML/CSS/JavaScript in an Agile environment.
- Led office hours for a 600 student course, providing detailed feedback on research methods, design iterations, and software engineering practices to elevate project quality and problem-solving.

Deloitte   Hamburg, Germany
Cyber Risk and Strategy Intern   May 2021 - Aug 2021
- Devised and implemented third-party risk management programs in collaboration with clients, enhancing ISO 27001 compliance and reducing external cyber incidents by 40%.
- Built automated databases and PowerBI dashboards with client-focused workflows, reducing manual effort by 75% and ensuring easy handover and long-term scalability of risk assessments.

PROJECT EXPERIENCE

Crackd.ai (Columbia University, under Prof. Lydia Chilton)   New York City, NY
Software Engineer   Sept 2025 - present
- Designed and deployed an AI humor generation platform using LLMs to produce witty, culturally aware image captions, with a backend QA framework enabling inspection, iterative tuning, and multi-step prompt refinement.
- Engineered production-ready frontend and backend with Next.js, TypeScript, SST, Supabase, and AWS, supporting image uploads, base64 encoding, LLM-specific integration, and scalable experimentation pipelines for multiple models.

VIC-based Drought Prediction Model (Columbia University)   New York City, NY
Programmer   Jan 2025 - May 2025
- Trained a TreeFFuser autoregressive model to predict monthly drought severity under multiple GHG scenarios, achieving up to 0.99 R^2 and generating 75-year long-term forecasts for climate planning.
- Engineered temporal and hydrometeorological features (lags, rolling means, interactions) and validated across three climate models using time-series cross-validation with 90% prediction intervals.

Image Quilting Optimization (ETH Advanced Systems Lab)   Zurich, Switzerland
Programmer   Feb 2023 - Jul 2023
- Accelerated a single-threaded image quilting algorithm in C by implementing hardware-related optimizations, achieving a 15x speedup over initial baseline.
- Built a custom code generator and performance testing infrastructure for scalar and vector operations of optimized algorithm, using Python to auto-tune all hyperparameters.

SKILLS & INTERESTS

- Fluent in English, French, German; Proficient in Cantonese; Basic Understanding of Mandarin, Korean.
- Strong collaborator and proactive problem-solver; experienced coordinating complex technical projects.