Amber Xiao

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Education

University of Pennsylvania Philadelphia, PA
BSE in Computer Science 2023 - 2027
- **Relevant Coursework:** Data Structures and Algorithms, Human Computer Interaction, Big Data Analytics, Artificial Intelligence, iOS Programming, UX and UI Design
- **Clubs:** Women in Computer Science, UPGRADE Game Development, Pencilbite Animation Studio

Skills

Languages: C, C++, Java, Python, OCaml, Unix/Linux, HTML/CSS, JavaScript (React, Node.js, Next.js), Typescript, Swift

Tools: VS Code, Visual Studio, Google Colab, MySQL, Jupyter Notebook, Github Desktop, Docker, XCode, Cursor, Gemini CLI, Claude

Design: Adobe CC (Illustrator, InDesign, Photoshop, Premiere Pro), Procreate, Figma

Work Experience

Incoming Summer Analyst Intern at Verition Fund Management (New York, NY) June 2026 - Aug 2026

Aigen Investment Management New York, NY
Quant Research Intern Dec 2025 - Jan 2026
- Engineered a stock clustering pipeline using **dynamic grouping** (K-means, CNM, SOM) and PCA with **text embedding** using **SBERT** to segment **300+ liquid stocks** by hidden factor exposures
- Delivered **weekly reports** to team identifying historical trends and snapshot-based analysis on stock descriptions
- Identified *major trends* in industry stock clusters by applying PCA to **7000+ equities**, grouping stocks dynamically by sector and factor exposure relative to the GICS index

University of Pennsylvania AI for Ambulatory Care Innovation (AI-4-AI) Lab (PI: Prof. Kevin Johnson) Philadelphia, PA
Undergraduate Researcher Oct 2025 - Present
- Integrated Python data analysis with Javascript visualizations for the Observer Repository project
- Developed and streamlined aggregate metadata search function for multimodal clinical data in the Observer Repository

Teaching Assistant – iOS Programming Philadelphia, PA
- Supported instruction to **25+ students** in **Swift, Xcode, and UIKit** through labs, office hours, and project guidance Aug 2025 - Dec 2025
- Graded assignments and provided personalized feedback to strengthen students' coding and app design skills

Duet Inc. San Jose, CA
Software Engineer Intern June 2025 - Sept 2025
- Presented, designed in **Figma**, and developed two responsive websites using **HTML, CSS, JavaScript**, and **Bootstrap** and jQuery
- **Help Center** website for the Duet webapp to improve customer support resource and a **Conference** website to showcase Duet's upcoming industry event presence

Technical Projects

Outfitter: https://github.com/embrexin/OutfitterApp Oct 2025 - Dec 2025
- Developed a closet organization webapp in **React** with custom styling and a **Python** backend
- Implemented personalized clothing recommendations using **Gemini API**
- Included dynamic features such as automatic clothing sorting using tags and weather reminders

PetSteps: Adobe Digital Edge Awards Winner 2024 April 2024 - Oct 2024
- Developed a fitness game in **Swift** using **XCode** aimed at motivating users of all ages to exercise
- Implemented MVVM architecture, CoreLocation framework, ARKit, Weather API, and Google Gemini API for an AI exercising assistant

Colorectal Cancer Analysis: https://github.com/embrexin/Colorectal-Cancer-Analysis/ April 2025 - May 2025
- Conducted comprehensive data analysis of 150,000+ row dataset of colorectal cancer patients using **Python**
- Analysis includes Data Cleaning, Data Visualization, Exploratory Data Analysis, and Predictive Modeling (Random Forest).

Personal Portfolio Websites June 2024 - Present
- Developed two personal websites to showcase Computer Science and Illustration work from scratch using **HTML, CSS, and JavaScript**