Aileen Du

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EDUCATION

Wellesley, MA

B.A. in Computer Science and Music | Cumulative GPA: 3.74

Expected May 2027

- Relevant Coursework: Introduction to Python, Java and Data Structures, Linear Algebra, Combinatorics and Graph Theory, Introduction to Algorithms (cross-registered at MIT), Foundations of Computer Systems, Software and Data, Natural Language Processing (Fall 2025), Mobile App Development (Fall 2025).
- Gordon Engineering Leadership Program, MIT: Selected participant for 2026, focusing on strategic leadership, organizational management, and data-driven decision making for complex engineering challenges.

EXPERIENCE

ClearCOGS Chicago, IL

Software Engineering Intern

May 2025 - Aug 2025

- Built a React application with automated data pipelines, integrating enterprise point-of-sale (POS) systems across 200+ restaurant locations and reducing 90% of manual workflows through CSV parsing algorithms.
- Implemented ML feature engineering pipelines integrating external data sources (hotel rates, event proximity) as predictive regressors, improving demand forecasting accuracy by 15% through optimized preprocessing and modeling.

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Remote

AI Agent Intern

- June 2025 Aug 2025
- Completed an intensive 11-week <u>AI agent development program</u> specializing in the LangChain framework, covering the foundations of generative AI, LLMs, prompt engineering, and autonomous agent design.
- Developed and deployed a <u>personalized learning AI agent</u> using the LangChain framework with OpenAI's GPT-4, RAG and vector database architecture, achieving 95% user satisfaction through intelligent quality assessment algorithms.

Break Through Tech AI

Remote

AI/ML Fellow

- June 2025 Present
- Developed and deployed <u>end-to-end machine learning models</u> using Python, including KNN, Decision Trees, Logistic Regression, and Neural Networks, for classification, regression, and sentiment analysis tasks.
- Applied data manipulation and visualization techniques using Pandas, NumPy, Scikit-learn, SciPy, and Seaborn to identify key patterns in customer behavior. Optimized customer behavior model performance by 20%.

MIT Media Lab, Opera of the Future

Cambridge, MA

Research Assistant

Sep 2024 - May 2025

• Engineered a <u>virtual mouse system</u> using TouchDesigner, Python, and MediaPipe, achieving 95% gesture detection accuracy, enabling hands-free interaction with emotion-visualization displays and improving visitor accessibility.

PROJECTS

WellesleyCrave April, 2025

Food Tracking & Community Platform

- Designed a <u>full-stack web application</u> with Python backend and SQLite database, implementing SQL queries and API design to serve 5 dining hall locations with 65% search performance improvement and scalable data architecture.
- Led collaborative development workflows using Git branching strategies, code review processes, automated deployment pipelines, and concurrent feature development across a team of 3 engineers.

LEADERSHIP AND EXTRACURRICULARS

Coding Club

Wellesley, MA

Sep 2023 - Present

- Represented Wellesley in the ICPC (International Collegiate Programming Contest).
- Mentored 8+ junior developers in algorithm design and implementation, improving team problem-solving efficiency through collaborative debugging and code review processes.

Rewriting the Code (RTC)

Software Developer

Remote

eBay Pathway Program Fellow

Oct 2024 - August 2025

• Selected for the competitive eBay Pathway program through active participation in RTC technical workshops and community initiatives. Engaged in advanced software engineering mentorship and industry networking.

Wellesley College Varsity Golf

Wellesley, MA Sep 2023 - Present

Co-Team Captain
Led 20+ weekly hours of training and tournaments, resulting in national DIII women's golf 5th place ranking.

SKILLS

• **Programming Languages & Tools**: Python, Java, C, SQL, Pandas, Numpy, HTML, CSS, JavaScript, React, Git, RAG, LangChain, Microsoft Office Suite (Word, Excel, PowerPoint).