

# Olivia Hu

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## EDUCATION

### University of Pennsylvania

*BSE in Computer Science (AI Concentration), Minor in Mathematics*  
*MSE in Data Science*

Philadelphia, PA

*Aug. 2023 – May 2027*

*Aug. 2025 – May 2027*

- GPA: 4.0/4.0
- **Relevant Courses:** Data Structures & Algorithms, Operating Systems, Computer Systems, Multivariable Calculus, Linear Algebra
- **Activities:** WALK Magazine Designer, Women in Computer Science, Theta Tau

## EXPERIENCE

### Gusto

*Software Engineering Intern (Business Insurance Team)*

New York, NY

*June 2025 - August 2025*

- Spearheaded full-stack development of Gusto's first centralized Business Insurance dashboard, projected to reduce a significant portion of **8,000+** annual support cases and raise average policies per customer by **9%**
- Designed and implemented new API endpoints and backend workflows powering the General Liability landing page, projected to add **+\$2.8M** in **FY2026 ARR**
- Enhanced reliability by defining **SLOs in Datadog** via **Terraform**, unifying alerting and dashboard standards

### Penn Labs

*Frontend Engineer, Penn Courses*

Philadelphia, PA

*Feb. 2025 – Present*

- Maintain and extend production-grade web applications used by **10,000+** Penn students, contributing to a 6+ year-old monorepo with **4,000+** commits
- Implemented a new **"Breaks"** feature for course schedules using **React**, **TypeScript**, and **Redux Toolkit**, improving schedule flexibility and user experience under tight deadlines

### Penn Spark

*Blue Developer, Project Lead*

Philadelphia, PA

*Aug. 2024 – Present*

- Led a team of 3 developers in designing and building a full-stack web product from the scratch over a semester
- Authored **30,000+** lines of code, contributing the majority of the project's frontend, backend, and infrastructure
- Managed weekly stand-ups and sprint planning to maintain consistent team progress using **Agile** methodologies

### University of Pennsylvania

*Teaching Assistant, CIS 1210 (Data Structures & Algorithms)*

Philadelphia, PA

*Jan. 2024 – Present*

- Teach and support **300+** students in data structures and algorithms
- Headed rubrics committee for CIS 1600, delegating tasks to 10 members and ensuring rubric quality and clarity

## PROJECTS

### Penn OS | C

- Built a user-level UNIX-like operating system from scratch with a shell, scheduler, and file system
- Implemented a command-line shell with job control, foreground/background execution, and signal handling
- Designed a round-robin process scheduler with context switching, PCBs, and support for zombies and orphans

### Bank Account Fraud Models | Python, Pandas, NumPy, PyTorch

- Performed EDA on **1,000,000+** account records to identify fraud indicators and clean imbalanced data
- Trained an XGBoost model with **73.9%** recall to prioritize minimizing undetected fraudulent transactions
- Used downsampling, SMOTE, and class weight adjustments to handle severe class imbalance in fraud labels

## COMMUNITY INVOLVEMENT

### INTEGIRLS

*Co-founder, Executive Member*

St. Louis, MO

*2021 – 2023*

- Hosted 3 annual math competitions for 100+ middle and high school competitors who identify as girls

### Rewriting the Code (RTC)

*Member*

*Mar. 2024 – Present*

## TECHNICAL SKILLS

**Languages:** C, HTML/CSS, Java, JavaScript/TypeScript, Python, SQL

**Frameworks/Tools:** Express, Figma, Jest, Matplotlib, MongoDB, Mongoose, Node.js, NumPy, Pandas, PyTorch, React.js, Supabase

**Cloud/Infrastructure:** Datadog, Docker, Git, Linux, Terraform