





# Cyrus Singer

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## EDUCATION

### University of Pennsylvania

May 2026

*Bachelor of Science in Computer Science*

*Current GPA: 3.64/4.0*

**Relevant Courses:** Mechanical Properties of Materials (graduate level), Introduction to Mechanical Design

### University College School (UK)

July 2023

**A Levels:** *Physics (grade A\*), Economics (A), Mathematics (A\*), Further Mathematics (A)*

**GCSE/IGCSE (grades all 9/9):** Mathematics, English Literature, English Language, Spanish, Chemistry, Biology, Computer Science, Physics, Geography, Drama

## SKILLS

**Languages:** JavaScript/TypeScript, Java, Kotlin, Python, C/C++/C#, HTML/CSS, LaTeX, Unix Shell, Lua, Haskell, x86, RISC-V

**Software Tools:** Matlab, GCP(Functions, Metrics, Cloud Run, IAM, Cloud Storage, Load Balancer, Cloud Logging), AWS(EC2, S3, Sagemaker, IAM), Firebase, Docker, Git, Tailwind CSS, Unix Shell, GDB, Selenium

**Other tools:** Solidworks, PrusaSlicer, Onshape, SystemVerilog

**Fabrication Experience:** FDM 3D printing (PLA, ASA, PETG), laser cutting

**Software Frameworks:** React, Node.js, Express.js, JUnit, Jest

**Software Libraries:** Pytorch, Tensorflow, pandas, NumPy, Matplotlib

## WORK EXPERIENCE

### Technical Lead on Bizzybots Platform | Wharton Behavioral Lab

2022 - Present

- I am leading development of an LLM-powered chatbot platform used for negotiation research and education
- Manage the five-member development team, set the development schedule, ensure product quality and direct system design
- Manage QA for the platform, through code standards & reviews, unit testing, integration testing and UI testing
- I personally handle many full-stack, security, and DevOps tasks

*Reference available upon request*

### Teaching Assistant for Internet and Web Systems (graduate level) | University of Pennsylvania

2024 - Present

- Through Office Hours and an online forum, I help students debug their code and understand the course material
- I mentor two groups through the final project, building a distributed search engine

## PERSONAL PROJECTS

### Weather Balloon Operating Code & Circuits

*Python, Embedded Systems, Serial, USB, PWM, I<sup>2</sup>C*

Launched in 2019

- Created software that took measurements from onboard sensors, stored and transmitted the compressed data via a satellite link
- Provided for hardware and software redundancy
- Collaborated with a partner who handled power, ballast and lift systems of the balloon
- Received the CREST Gold award for the project

### Brittle Object Simulation | Python, GPU optimization | [source code](#),

2022

- Developed program that simulated the internal stresses of brittle lattices under forces and collisions
- Used a gradient descent method to resolve bond stresses
- Optimized the program to run on a GPU

### RL Experiment | Java, Python, Tensorflow, Deep Q Learning | [source code](#)

2020

- Developed a Java physics environment in 2d to simulate agents
- Tested multiple ML techniques on the agents, such as double deep Q learning
- Built a training data pipeline to help train agents to complete a 2d obstacle course