Cyrus Singer

github.com/brianbob12 linkedin.com/in/cyrus-singer-35b4a5221 japaneserhino@gmail.com (561) 403-8133

Education

University of Pennsylvania May 2026
Bachelor of Science in Computer Science *Current GPA: 3.64/4.0*
Relevant Courses: Networks and Security, Internet And Web Systems (graduate level), Linear Algebra and Optimisation (graduate level)

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, Bash, Lua, Haskell, x86
Tools: GCP(Functions, Metrics, Cloud Run, IAM, Cloud Storage, Load Balancer), AWS(EC2, S3, Sagemaker, IAM), Firebase, Docker, Git, Tailwind CSS, Unix Shell, GDB
Frameworks: React, Node.js, Express.js, JUnit, Jest
Libraries: 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
- I manage the five-member development team, set the development schedule, ensure product quality and direct system design
- I personally handle many full-stack, security, and DevOps tasks

Reference available upon request

Intern | *Olivetree Financial Ltd* Summer 2019

- Developed web scraping tools for the financial research team
- Conducted fundamental analysis. Conceived, researched and presented a long-short investment proposal (focused on Advanced Micro Devices Inc.)
- Assisted head research analyst and aided chief compliance officer

Personal Projects

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

Tensorflow 2 ML Package | *Python, Tensorflow* | pacakge source, usage 2022

- Developed and documented a python package to simplify the process of creating and training ML models
- Added tools for automated training pipelines using callbacks for control
- Used the tools to train a CNN to classify images of flowers

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 internal stresses

Weather Balloon Operating Code & Circuits
Python, Embedded Systems, Serial, USB, PWM, I^2C | source code 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