

Glenn Sun

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Education

Sep. 2019 – **B.S./M.A. Mathematics (combined)**, *University of California, Los Angeles*.
Jun. 2023 Current GPA: 3.85. See attachment for relevant coursework.

Research Experience

Jun. 2020 – **Undergraduate Researcher**, *Northwestern University*.
Present

- Advisor: Jessica Hullman, collab. with Jason Hartline
- Funding: REU Supplement
- Main question: How does human behavior in congestion games change when presented historical data, and could using a better visualization to present the data result in improved social benefit?
- Helped develop the research question by providing evidence (R simulations or mathematical proofs) that show why certain ideas may be more feasible than others
- Wrote parts of the study website in HTML/CSS/JavaScript and analyzed study data
- Planning to submit paper to EC'21

Teaching Experience

Oct. 2020 – **Grader**, *UCLA Department of Mathematics*, 10 hr/wk.
Present

- Grade weekly quizzes for proof-based linear algebra class of 120 students
- Provide students with individualized feedback when necessary

Oct. 2020 – **Lead Instructor**, *UCLA Olga Radko Endowed Math Circle (formerly known as Los Angeles Math Circle)*, 7 hr/wk.
Present

- Teach a class of 20 high school students once per week on Sundays
- Collaborate with other instructors to develop curriculum; topics include P vs. NP, Axiom of Choice, quadratic reciprocity, Brower's fixed point theorem, etc.
- Engage students by creating exercises and handouts that guide discovery of theorems, rather than purely giving lecture
- Coordinate teaching assistants and incorporate their feedback into handouts

Oct. 2019 – **Teaching Assistant**, *Los Angeles Math Circle*, 4 hr/wk.
Aug. 2020

- Assisted a group of 5 high school students (class of 20) once per week on Sundays by providing hints and explaining key concepts
- Provided feedback on weekly handouts written by lead instructors

Jun. 2020 – **Teaching Assistant**, *AwesomeMath Summer Program*, 25 hr/wk.
Jul. 2020

- Taught AIME/USAMO-preparatory classes of 25 students in Algebra and Number Theory
- Independently ran review and problem solving sessions; answered questions during lectures
- Provided office hours twice per week, graded exams, and scribed official lecture notes

Jun. 2018 – **Teaching Assistant**, *Program for Algorithmic and Combinatorial Thinking*, 15 hr/wk.
Jul. 2018

- Mentored 9 high school students daily on proofs and discrete math
- Wrote exam questions in collaboration with other TAs, graded exams and daily homework
- Provided individual tutoring for students and witnessed improved exam scores as a result

Software and Hackathons

List of Known Languages and Libraries.

- L^AT_EX (beamer, tikz, bibtex, most standard libraries)
- Python (NumPy, Pandas, Matplotlib, TensorFlow, Jupyter Notebook, Flask)
- JavaScript (Node.js, React, Electron, ES6), HTML/CSS
- GitHub, Linux, SSH, Google Cloud, AWS
- Some familiarity with: R, MATLAB, C++, Lean

Mar. 2020 **Best Use of Google Cloud, Best Collaboration Hack, LA Hacks (of 192 hacks).**

- Created an SMS/voice call interface for Google Classroom, for students without internet
- Features included dictation for essays, photo stitching for increased resolution
- Technologies used: Flask (Python), various APIs (Google, Twilio)

Sep. 2019 **Best Hack for Resilience, PennApps (of 242 hacks).**

- Created a proof-of-concept for an application that eases saving and investing money based on recommendations from reputable sources
- Technologies used: HTML/CSS/JavaScript, various APIs (Goldman Sachs)

Feb. 2019 – **Software Intern, JP Morgan Chase.**

- Mar. 2019
- Evaluated data transfer efficiency between different configurations of cloud databases
 - Summarized findings in written report and made presentation
 - Technologies used: Python, SQL, AWS S3 and EC2, Snowflake

Other

Dec. 2019 **Putnam Competition, 30 points.**

Oct. 2016 – **Volunteer Go Instructor, East Brunswick Public Library.**

Jun. 2018