

EDUCATION

- University of Chicago** | **B.S. in Mathematics & Computer Science (double major)** **Sept 2021 - June 2025**
Chicago, IL
- **GPA:** 3.0/4
 - **Current Coursework:** Numerical Analysis, Markov Chains Martingales and Brownian Motion, Complexity Theory, Programming Languages
 - **Relevant Coursework:** Computer Security, Discrete Math and Theory of Algorithms, Real Analysis, Complex Analysis
 - **Academic Interests:** Analysis, Programming semantics, Computer Security, Cryptography

PROJECTS

- Password Manager** (Oct 2021 - Present): Text User Interface with ability to **recovering** password, **generate** new cryptographically secure passwords, **update** previous passwords. Written in **Java**, automated in **Batch**
- Password Manager Bot** (January 2024 - February 2024): A Discord integration that allows seamless interaction between the aforementioned Password Manager and allows for accessing of your passwords from other devices without the prerequisite of hosting a server. Written in **Python**, **Java**, and **Batch**
- Starfruit Bot** (February 2024 - March 2024): A Discord integration that parses the wiki data and formats it into an easily accessible and sortable format for the game Stardew Valley. Written in **Python** and **Batch**
- M.E.N.A.C.E. AI** (March 2024 - April 2024): An "antediluvian" AI based off of M.E.N.A.C.E.; given 304 matchbox states, matchbox states are trained against each other to play tic-tac-toe. Written in **Java**

EXPERIENCE

- Masterprep Academy** **Jun 2023 - Aug 2023**
Teacher Irvine, CA
- Designed curriculum for Enhanced Math 7/8, Enhance Math 1, Enhanced Math 2, AP Biology, and AP Chemistry. Conducted SAT, ACT, and ISEE test prep/mock exams. Taught classes on AMC 10, Enhanced Math 1, and Spanish.
- Private Tutoring** **Jan 2020 - Present**
- Tutored Differential Equations and Linear Algebra (3 student); Calculus I, II, and III to high school students (20 students); Geometry and Algebra 2 to incoming middle school students (8 students)
- A Greater Good Foundation** **Jun 2022 - Aug 2022**
Curriculum Designer/Intern Chicago, IL
- Developed a Social and Emotional Learning (SEL) curriculum tailored to individual learning preferences, slated for implementation in select schools in Chicago, Illinois. Organized a community event to raise awareness for mental and physical health.

VOLUNTEER

- DefendHerRights** **Mar 2023 - Present**
Co-director/Web Designer
- Co-directed DefendHerRights, a nonprofit empowering women and youth with disabilities. Designed and launched organization's website using JavaScript and HTML, including Spotify podcast integration.
- Irvine Volunteer Association** **Jan 2020 - Aug 2021**
Patent Designer/Engineer Irvine, CA
- Patented two ideas tackling homelessness in California: a water bottle also used for concealing important documents and an easily relocatable compact shelter.

SKILLS

- Languages** Java, C/C++, Python, OCaml, Haskell, Racket, R, LaTeX, Javascript, SQL, bash, batch
- Technologies** MySQL, Linux, Bash, Selenium, Wireshark, Hashcat

PERSONAL

- Languages** Fluent in **English** and **Korean**, knowledgeable in **Chinese**, **Japanese**, and **Spanish**; studying **French**
- Interests** Japanese language and culture, Music, Community Service, Korean Chess (9 dan), League of Legends (Masters tier - top 0.2%)