

**EDUCATION****The University of Chicago, 4.0/4.0***Bachelor of Science in Computer Science*

Chicago, IL

expected June 2027

**The Harker School, 4.32/4.00***High School Diploma***San Jose, CA**

May 2024

**Classes:** Compilers & Interpreters, Neural Networks, Computer Architecture, Data Structures, Game Theory**Languages:** *Java, Python, C++, JavaScript, HTML, CSS***TECHNICAL PROJECTS**

- **Built N-Layer Perceptron using Java** - Starting from a simple 2-2-1 excel spreadsheet and working towards a n-layer perceptron using backpropagation learning algorithm built a neural network that took in gray scale image of my hand holding 1-5 fingers and determined how many fingers I was holding up. Written in **Java**.
- **PPO Research and Perceptron Essays** - Researched the development and expansion of Rosenblatt's Multilayer Perceptron and studied the model of Proximal Policy Optimization (PPO) a neural network that uses rewards and punishments to shape model behavior
- **Built Simple Pascal Compiler** - Built a compiler from lexical analysis to machine code generation from scratch for Pascal language in **Java** to learn the compiler stages
- **Upcycling Project Search Database** - Created a project searching database in **Java** to help find craft projects given a set of materials to aid upcycling projects and reduce the number of single-use materials going straight to landfills
- **Twisted Prison** – Designed an analog mock game of [Twisted Prison](#), a 3D digital game, collecting keys on a rotating rubix cube while avoiding prison wardens. Currently working on developing a digital version this winter

**EXPERIENCE****EduNATION, San Jose, CA***Chief Executive Officer, Co-Founder, September 2022 – June 2024*

- Provided custom B2B eCourse service for company onboarding and customer training
- Created educational documents and videos explaining how to use the Mindmarker and Label Studio web interface
- Partnered with companies FEA, Mindmarker, and MinervacQ to create courses for their students, employees, and prospective customers

**Teacher Assistant for Advanced Programming, San Jose, CA***Harker Upper School Summer, June 2024 – July 2024*

- Graded labs and exams for intensive six week course teaching the foundations of object oriented programming through **Java** for 50+ students
- Assisted students through explaining concepts, providing detailed feedback to improve the efficiency and readability of code, and prepared study guides for students in tutoring to ensure proper learning

**LEADERSHIP & ACTIVITIES****Robotics Team 1072, San Jose, CA***Executive President (2024), Scouting and Strategy Director (2023)*

- Hosted meetings for 50+ active members and resolved team wide disputes to ensure progression of team goals
- Represented team at the Worlds tournament by hosting pre-match strategy meetings with other teams
- Created a private **Python** scouting analyzer using data from stand scouters and official competition data to determine strengths and weaknesses of robots at the competition. Worked with the App Dev subteam to design and spread a public scouting app, The Purple Warehouse, to over 200+ teams across the world.

**Future Problem Solving Club, San Jose, CA***Co-President (2024), Community Problem Solver (2022)*

- Organized joint campus activities and agendas for 40+ members in the FPS Club in the Lower, Middle, and Upper School to create a community of problem solvers, analyzing topics from Insects and protein to Antarctica and climate change
- Led an awareness campaign for elementary school students through poster making sessions, information videos on Youtube and Instagram, and internet challenges to teach students the dangers of plastic pollution.