

AELIYA GROVER

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EDUCATION

The University of Chicago

Bachelor of Science in Computer Science

Chicago, IL

June 2028

The Harker School

Diploma,

San Jose, CA

May 2024

GPA: 4.32

Classes: Compilers & Interpreters, Neural Networks, Computer Architecture, Data Structures, Game Theory

TECHNICAL PROJECTS

- 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**.
- 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 a compiler from lexical analysis to machine code generation from scratch for Pascal language in **Java** to learn the compiler stages
- 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

EXPERIENCE

Harker Upper School Summer

Teacher Assistant for Advanced Programming

San Jose, CA

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

EduNATION

Chief Executive Officer, Co-Founder

San Jose, CA

September 2022 – June 2024

- Provided custom B2B eCourse service for company onboarding and customer training
- Winner of Harker BECON SHarker Tank 2023 – school wide startup competition
- Partnered with companies FEA, Mindmarker, and MinervacQ to create courses for their students, employees, and prospective customers

LEADERSHIP & ACTIVITIES

Robotics Team 1072

Executive President (2024), Scouting and Strategy Director (2023)

San Jose, CA

- 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

Co-President (2024), Community Problem Solver (2022)

San Jose, CA

- 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
- Competed in the Global Issues Problem Solving and Presentation of Action Plan to identify problems and provide solutions to those problems from different perspectives.
- Led a 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.