Grant Yang

(408) 568-4549
granty29@uw.edu github.com/ROTARTSI82 students.washington.edu/granty29

Skills

- **Technical**: Python, Numpy, PyTorch, C, C++, Rust, OpenGL, Java, TypeScript, ReactJS, TailwindCSS
- **Other**: Wolfram Mathematica, LaTeX, Information Theory, LLMs and Transformer Architecture, Blender

Education

- **University of Washington** Seattle, WA
  In progress: Bachelor of Science in Electrical and Computer Engineering *2025 – 2029*
- **Harker Upper School** San Jose, CA
  4.6/4.8 GPA *2021 – 2025*

Leadership Experience

- **LinkCrew (2023-2024)**: Organized and led discussions and games for groups of 10-20 students for my school, serving as an ambassador for new students.
- **Yearbook Editor (2022-2024)**: Managed reporters and planned coverage and content. Designed pages in Adobe InDesign, interviewed sources and took photos at events. Wrote an award-winning profile of one of my classmates (Best of SNO).

Projects

- **C++ Chess Engine**: Wrote a UCI chess engine that uses alpha-beta search to play chess. Implemented tricks including bitboards and multithreading.
- **Custom LLM**: From reading the literature on the subject, I implemented a transformer from scratch in PyTorch and trained a toy model on my text messages.
- **Robot Control**: Used a PID controller to drive a robot with Mecanum wheels, and implemented inverse kinematics to plan motions for a robot arm with 5 degrees of freedom.
- **Pascal Compiler**: Created a compiler for a custom Pascal dialect that targets MIPS32 assembly.
- **Neural Network**: Wrote and trained a network from scratch in Rust to perform image recognition.
- **4-bit Breadboard Computer**: Explored computer architecture by building a functional 4-bit computer from 7400-series integrated circuit chips. Programmed the computer with a custom instruction set to output the Fibonacci numbers.