

# Grant Yang

grantyang82@gmail.com    github.com/ROTARTSI82    students.washington.edu/granty29

(408) 568-4549

## SKILLS

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- **Languages:** Python, C, C++, Rust, Java, TypeScript
- **Technology:** Numpy, PyTorch, OpenGL, ReactJS, Git, Linux/Unix, Networking
- **Misc:** Wolfram Mathematica, Information Theory, Linear Algebra, Functional Programming

## EDUCATION

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- **University of Washington** Seattle, WA  
*Bachelor of Science in Electrical and Computer Engineering* 2025 – 2029 (expected)
  - **Coursework:** MATH 208: Linear Algebra, STAT 390: Statistical Analysis in R,  
E E 215: Intro to Electrical Engineering, PHYS 143: Honors Waves, Optics, & Heat.
- **Harker Upper School** San Jose, CA  
*4.6/4.8 GPA* 2021 – 2025

## PROJECTS

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- **C++ Chess Engine:** Designed a UCI chess engine based on alpha-beta search that achieved a 1600 Lichess rating. Utilized optimizations including “magic bitboards,” multithreading, and caching to search over 2M positions per second.
- **Custom LLM:** Implemented a transformer from scratch in PyTorch. Trained a 40M parameter model on my text messages, and performed a scaled-up training run on UW’s Hyak supercomputer of a 150M parameter model.
- **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 Architecture (ISA) to output the Fibonacci numbers.
- **Robot Control:** Used PID to drive a robot with Mecanum wheels, and implemented Jacobian inverse kinematics to plan motions for a robot arm with 5 degrees of freedom.
- **Pascal Compiler:** Designed and implemented a compiler for a custom Pascal dialect that targets MIPS32 assembly. Demonstrated complex programs on a MIPS32 emulator.

## LEADERSHIP EXPERIENCE

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- **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).
- **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.