

Ethan Kook

(818) 451-0881 | ethankook1@gmail.com

Education

University of California San Diego — Computer Engineering

Expected in 06/2026 | GPA: 3.6

- **Relevant Coursework:** Advanced Data Structures, Computer Architecture, Digital Systems/ Design, Linear Systems, Probability & Statistics, Algorithms and System Analysis, Machine Learning, Operating Systems, Circuit Design, Digital Logic

Skills

Programming & Software:

- C++, C, Python, SystemVerilog, Java, MATLAB, ASM, Javascript, HTML, CSS, Git, React, Spring Boot

Hardware & Design:

- KiCad, Cadence, PSpice, LTSpice, SolidWorks, Onshape

Tools & Technologies:

- Lab equipment, Digital Logic Design, Logic Synthesis, Soldering, Quartus Prime, QuestaSim, Microsoft Excel Certification (Microsoft 365 Apps and Office 2019)

Projects

RISC Processor (SystemVerilog):

- Developed 8-bit register-register/load-store processor with custom ISA, optimized for data manipulation, branching, and memory operations
- 8 general purpose registers, ALU control unit, LUT based branching
- 256-byte instruction/ data memory and indirect memory access.
- Compiler to convert from ASM to machine code

Audio Synthesizer (MATLAB):

- Built a GUI-based audio synthesizer with waveform generation, filtering, and a variety of filters and effects.
- Included real time and frequency domain visuals.

Autonomous Racing Robot (C++):

- Programmed self-driving robot with track detection and motor control using C++/ Arduino.
- Designed and printed chassis using Onshape, built a custom PCB with KiCAD.
- Tuned SPID control for speed optimization

Experience

Pho 22, Northridge, CA— Assistant Manager

01/2021 - 08/2023

Carmel Sushi, San Diego, CA— Server

09/2023 - 08/2024

Jaws Express, San Diego, CA— Cashier

09/2024 - Present