





DANIEL J. LEE

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EDUCATION

California Polytechnic State University, San Luis Obispo

B.S. in **Computer Engineering**
Expected: December 2025

Relevant Coursework:

Computer & Digital Design
Electrical Circuit Analysis
Systems Programming
Digital Signals and Systems
Microcontrollers / Embedded Applications
Semiconductor Device Electronics
Digital Electronics / Integrated Circuits
Computer Organization
Intro to Software Engineering
Autonomous Mobile Robotics
Computer Hardware Design

Currently Taking:

Intro to Computer Networks

SKILLS

Hardware Testing Devices:

Digital Multimeter
DC Power Supply
Oscilloscope
Function Generator

Programming Languages:

Python	CSS, TypeScript
Java	SystemVerilog
C	C++
C#	Dart

Applications:

Xilinx (Vivado)	MATLAB
Visual Studio	LTSpice
Word, Excel, PPT	Android Studio

PROJECT EXPERIENCE

Hardware:

Multipurpose DAC, Microcontrollers Project

- Implemented a digital function generator on STM32 microcontroller capable of changing frequency and order of harmonics
- Designed multiple digital filters responsible for oversampling and noise shaping the digital waveform
- Used delta-sigma modulation to create a high-frequency 1-bit output signal (PDM) from a GPIO pin for analog conversion

RISC-V MCU, Computer Design and Assembly Project

Language Used: SystemVerilog | Program Used: Vivado

- Developed a working RISC-V MCU on a Basys3 FPGA board with behavioral modeling and with rigorous simulation testing.
- Designed a control unit module that is able to fetch, decode, and execute instructions stored in memory

Software:

Package Transporter Application, Capstone Project

Language Used: Dart | Program Used: Flutter / Android Studio

- Created a logistics mobile application to aid distribution facilities with transportation of freight by motor vehicle.
- Solely responsible for creating the model-view controller implementing BloC state management under the Clean Architecture.
- Developed a topic message system that uses transactional calls using the REST API.

Contractor Search Website, Web Development Team Project

Languages Used: Python, TypeScript | Frameworks Used: React.js, Flask

- Developed a website that allows users to search up other people's information stored in a local database and request for services
- Utilized multiple component API from MUI for frontend styling
- Used Flask environment to handle HTTP requests in the backend

Command Shell, System Programming Final

Language Used: C

- Built a simple shell that is able to support the cd bash command and process file redirection from user inputs in the terminal
- Incorporated a parser that takes a valid user input into a pipeline for batch processing

CAMPUS / COMMUNITY INVOLVEMENT

Cal Poly Racing – Electronics Division

- Sorted datasheets and components for the construction of race vehicles

October 2019 – March 2020

Cal Poly Game Development – Member

December 2020 – June 2021

Cal Poly Audio Engineering – Member

September 2021 – September 2024

