

# Donald Le

☎ (858) – 231 – 3324 | ✉ donaldle@berkeley.edu | 🔗 linkedin.com/in/Donald-Le/ | 🌐 donaldle.com

## Education

**University of California, Berkeley**  
Mechanical Engineering, B.S.

**May 2024**  
**GPA: 3.34**

**San Diego Miramar College**

**May 2021**  
**GPA: 3.96**

## Technical Skills

**CAD:** Solidworks, Engineering drawings with GD&T, Inventor, Creo, Fusion 360, Finite Element Analysis (Ansys and Solidworks)

**Manufacturing:** DFM, CNC Mill, FDM/SLA 3-D Printers, Mill, Lathe, Waterjet, Laser cutting, Sheet Metal, Carbon Fiber Layups

**CS/EE:** Python, Matlab, Arduino, Microcontrollers, Sensors, Encoders, Servos/Motors

## Experience

### Amazon Robotics

**August 2023-Present**

*Hardware Safety Engineering Co-op (HDE I)*

- Performed a hazard and risk analysis (HARA) for a pick-and-place robotic arm
- Researched and documented safety functions for collaborative and industrial robots from ABB, KUKA, Fanuc, and Universal

### Solar Turbines - Caterpillar

**May 2023-August 2023**

*Mechanical Engineering Intern*

- Created a calculator to optimize lifting lug geometry based on relevant failure modes and desired factor of safety
- Designed standardized lifting lugs for all turbine air intake ducts and verified design using finite element analysis in Ansys
- Carried out structural analysis of all turbine air intake and ventilation duct stiffeners for worse-case wind loads
- Designed support mounts for turbine ducting and developed boundary conditions for simulation in Ansys

### Johnson & Johnson - Robotics and Digital Solutions

**Jan 2023-May 2023**

*Mechanical Engineering Co-op*

- Designed and implemented a robot joint torque testing machine using a torque sensor, planetary gearbox, and motor
- Performed an engineering study on the effect of absolute encoder rotor/stator axial spacing on robot joint friction
- Formulated and implemented a metric for robotic joint friction into a Python web tool
- Designed a 1mm pin pressing fixture for physician grasper manufacturing with undersized spring-loaded pins for alignment
- Created engineering drawings with GD&T to ensure proper alignment and clearances for all designed parts/components

### Berkeley Formula Racing (FSAE)

**Sep 2021-May 2023**

*Brakes and Driver Interface Design Engineer*

- Designed and manufactured throttle pedal and return mechanism reducing weight by 50% from the previous year
- Performed finite element analysis and material subtraction on the brake pedal, throttle pedal, and pedal tray
- Created engineering drawings with the necessary GD&T for all designed components
- Designed and manufactured carbon fiber pedal cups and their corresponding layup molds
- Carried out thermal analysis on brake rotors (Ansys)
- Conducted cost analysis for brakes and driver interface related assemblies

## Relevant Coursework

Intro to Robotics

Robotic Locomotion

Matlab Programming

Properties of Materials

Fluid Mechanics

Thermodynamics