

Elliott Bryniarski

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EDUCATION

California Polytechnic State University - San Luis Obispo
Bachelor of Science in **Mechanical Engineering** - GPA: 3.1

June 2024

PROJECTS

Automated Inspection System for Biomedical Application

Sept 2023 - June 2024

- Designed custom fixtures and tooling in SolidWorks for a system with a 6-axis robotic arm and machine vision system.
- Spearheaded client communication by turning sponsor requirements into detailed technical design documents.
- Managed the project timeline using Gantt charts so all milestones were met on schedule.
- Delivered a fully 'lights out' system for manufacturing defect detection and reduced inspection time by over 50%.

Two-Wheeled Balancing Robot

Mar 2024 - June 2024

- Modeled all mechanical components in SolidWorks with precise fitment for critical components.
- Executed the end-to-end hardware development, including initial PCB layout and routing in Fusion 360 and hands-on debugging to correct board-level design defects.
- Programmed controls in C++, implementing a cascading PID controller to achieve self-balancing.

Two-Stage Spring Design and Analysis

Mar 2023 - June 2023

- Designed a two-stage beam spring in SolidWorks for SLA 3D Printing with a specific force-deflection curve.
- Validated SolidWorks Simulation results by comparing predicted stresses with empirical data from a tensile testing machine.

EXPERIENCE

PCL Construction – Bakersfield, CA

Summer 2021 and 2022

Project Engineering Intern

- Increased team efficiency by developing automated tools in Excel VBA to populate accounting spreadsheets and assist material requisition, reducing manual data entry by 50%.
- Interpreted schematics to make accurate bills of materials and clarify project scope for clients and vendors.

SKILLS

Design & Analysis: SolidWorks, Fusion 360, AutoCAD, CAD/CAM, FEA, GD&T, DFM

Programming & Automation: Python, MATLAB, Excel VBA

Hardware: 3D Printing, Soldering, Lathe, CNC

Project Operation: Project/Timeline/Budget Management, Client Communication, Microsoft Suite

WORK EXPERIENCE

Chipotle - Bakersfield, CA

Crew Member

Apr 2025 – Present

- Prepare and portion ingredients for a daily, high-volume food service with strict food safety and hygiene protocols.

Best Buy - San Luis Obispo, CA

Geek Squad Agent

Sept 2023 – Jul 2024

- Provided technical assistance, resolving hardware/software issues and explaining difficult concepts to customers in a clear and concise manner.