

# Charles Bradley

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## EDUCATION

### California Polytechnic State University

*Bachelor of Science in Mechanical Engineering*

- **Relevant Coursework:** Engineering Statics, Engineering Dynamics, Electric Circuit Theory, Programming for Engineering Students, Linear Analysis (Honors), Manufacturing Processes: Material Removal
- **Activities & Societies:** Member, Sigma Phi Delta (Professional Engineering Fraternity)

San Luis Obispo, CA

*Expected May 2028*

## PROJECTS

### TARS | *Sigma Phi Delta*

Jan 2026 – Present

- Developing a proof-of-concept robot inspired by TARS, capable of autonomous locomotion
- Implementing voice commands to control movement using predefined servo positions
- Designing a scalable mechatronics platform for future expansion into vision-based automation, asynchronous control, and artificial intelligence

### Vacuum Chamber | *Milwaukee Tool*

Jan 2023 – April 2023

- Collaborated on a three-person team to design and prototype a vacuum chamber capable of simulating altitudes up to 29,500 ft, enabling in-house high-altitude testing
- Conducted analytical calculations for vacuum pump sizing, pressure differentials, material strength, and factors of safety, improving the reliability and repeatability of testing
- Created proof-of-concept and detailed SolidWorks CAD models, including chamber, base structure, and component interfaces to guide next-phase development and documentation

### Waste Reduction | *Asea Brown Boveri*

Sept. 2022 – Dec 2022

- Collaborated on a three-person team to research waste-reduction strategies for packaging and labeling materials
- Proposed solutions projected to save \$20,000 annually while reducing carbon footprint and enabling a circular reuse of styrofoam packaging waste
- Presented findings to ABB's environmental team using Microsoft Suite

## EXPERIENCE

### Expeditor

May 2021 – Sept 2024

*Brookfield, WI*

*North Star American Bistro*

- Coordinated between front and back-of-house to ensure accurate and timely service
- Strengthened communication, leadership, and time management skills in a fast-paced setting

### Stocker/Guest Assistance

May 2022 – May 2023

*Pewaukee, WI*

*Menards*

- Provided excellent customer service by assisting guests in selecting plumbing supplies, fittings, and fixtures based on project needs
- Organized and restocked inventory to ensure accurate product placement and availability across plumbing aisles

## CERTIFICATIONS

### Certified SolidWorks Associate (CSWA) | *Dassault Systèmes*

- Certified in parametric part modeling, assemblies, and engineering drawings using SolidWorks, with emphasis on design intent and standardized modeling practices

### Autodesk Inventor Certified User | *Certiport*

- Certified in 3D mechanical design and parametric modeling using Autodesk Inventor to create and simulate parts, assemblies, and engineering drawings

### Lean Six Sigma | *LinkedIn*

- Completed training in process improvement and quality management principles using Lean and Six Sigma methodologies to optimize efficiency and reduce waste

## TECHNICAL SKILLS

**Software:** SolidWorks, Autodesk Inventor, MATLAB, Siemens NX, Microsoft Office Suite (Excel, Word, & PowerPoint)

**Hardware:** Hand Drafting, Soldering, Machining (Lathe & Mill)