

# Brockton Gregersen

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## Education

**Brigham Young University** – Ira A. Fulton College of Engineering Provo, UT  
*Bachelor of Science in Mechanical Engineering, Minor in Computer Science* Dec 2026  
GPA: 3.9 / 4.0

## Skills

### Computer Aided Design

- Proficiency in SolidWorks, Onshape
- Familiarity with GD&T

### Computer Programming

- Advanced level in Python, Java
- Intermediate level in MATLAB, C++

## Relevant Coursework

- Design of Mechatronic Systems
- Advanced Software Development
- Algorithm Design and Analysis
- Mechanical System Design
- Manufacturing Processes
- Computer Aided Design
- Fluid Mechanics
- Heat Transfer
- Materials Science

## Projects & Clubs

**Genetic Algorithm to Optimize Beam and Column Cross Section** Apr 2025 – Present  
*Personal Project*

- Developed a genetic optimization system for beams and columns in Python
- Implemented computer algebra methods to derive equations for moments of inertia of arbitrary shapes
- Optimized strength and weight of cross sections and showed I-beams are optimal for bending loads

**Chess Client and Server** Jun – Aug 2024  
*Advanced Software Development Class*

- Implemented a client-server architecture for an interactive chess game in Java
- Applied test-driven development to ensure consistent and reliable game functionality
- Utilized Git version control to manage revisions and project organization

**Antweight Radio Controlled Robot** Sept – Dec 2023  
*Team Member – BYU Combat Robotics*

- Designed and 3D printed chassis for a small remote-controlled robot
- Integrated and assembled electronics for functionality

**Composite RC Model Plane** Jan – Apr 2023  
*Team Member – BYU Aeronautics Club*

- Designed fuselage of plane for laser cutting
- Vacuum coated wings with composite materials

## Experience

**Missionary Training Center** Provo, UT  
*Haitian Creole Teacher* Apr 2023 – Aug 2025

- Used comprehensible input strategies to facilitate high-level comprehension in novice language learners
- Identified gaps in learner understanding and adapted lessons to meet their needs

## Awards & Interests

- Eagle Scout, Boy Scouts of America
- Familiarity with FDM 3D printing

## Leadership & Service

**The Church of Jesus Christ of Latter-day Saints** Miami, Florida  
*Volunteer Representative* Nov 2020 – Oct 2022