

AMBROSE SIGLER

San Jose, CA | 669-270-8205 | sigleras@rose-hulman.edu

Objective: Seeking a mechanical engineering internship applying CAD, prototyping, and software development skills.

EDUCATION

Rose-Hulman Institute of Technology | Terre Haute, IN

Expected May 2030

Bachelor of Science, Mechanical Engineering

The King's Academy | Sunnyvale, CA

May 2026

High School Diploma | GPA: 4.038

Relevant Courses: EM 104 Graphical Communications, MA 111 Calculus I, AP Chemistry, AP Physics 1, AP Computer Science Principles

SKILLS

Software: Fusion 360, SolidWorks, Google Maps API, ArcGIS, WordPress, PostgreSQL, Linux, SSH, Python

Technical: CAD, 3D printing, robotics hardware, prototyping, web design, PC hardware integration, GPU computing, field surveying, geospatial analysis, computational geometry

Personal: Leadership, collaboration, problem solving, technical communication; Spanish (3 years of high school)

WORK EXPERIENCE

Fabtek Design | San Jose, CA

July 2024 - August 2026

Design Technical Assistant and Web Application Developer

- Conducted site surveys for Google and biotech facilities; produced field sketches used by architects.
- Modernized and troubleshooted company hardware by evaluating CAD, artificial intelligence, rendering, remote design, and analytics needs against budget constraints.
- Developed a production WordPress plugin automating data center siting using Google Maps API, county GIS, and custom geometry algorithms.
- Redesigned and rebuilt the company website (fabtekdesign.com) with a new visual design and an interactive 3D home page, replacing a 4-page template site with 9 pages, a contact form, and the test-fit tool built in.

Silicon Shores Corporation | Mountain View, CA

May - August 2026

Dock Hand and Camp Counselor - Shoreline Boathouse and American Bistro

- Directed daily operations and scheduled watersports activities; managed camper check-ins, land/water rotations, and dismissals.
- Managed dock and fleet operations, launched and retrieved rental watercraft, assisted patrons with equipment and safety briefings, and maintained boats and docks.

PROJECT EXPERIENCE

Local AI Inference Server - Home Lab Build

2026 - Present

- Modified a gaming laptop with an OCuLink adapter in its spare M.2 slot to drive an external RTX 3090 GPU for local large language model inference.
- Configured the system as a headless Linux server with secure remote access over SSH and Tailscale.
- Scaling to a micro-ATX platform with 64 GB DDR4 to support dual RTX 3090 GPUs (in progress).

Data Center Test Fit Visualizer - Full-Stack App

July 2024 - August 2026

- Engineered an end-to-end pipeline using Google Maps geocoding, county ArcGIS, and Turf.js to detect property boundaries and compute optimal footprints.

TKA Robotics Team - Mechanical Team Member

August 2022 - May 2023

- Designed robot components in Fusion 360 with 3D-printed parts; created a chassis selected second among seven designs.
- Fabricated competition robots using bandsaws, Dremels, drill presses, lathes, and hand tools.
- Collaborated with teammates to build robots and compete in three FIRST Tech Challenge meets.

LEADERSHIP, HONORS & ATHLETICS

Rose-Hulman Cross Country and Track & Field - NCAA Division III

August 2026 - Present

- Compete in cross country, indoor track, and outdoor track while carrying a full mechanical engineering course load.

The King's Academy Cross Country - Captain / Varsity Runner

August 2022 - November 2025

- Led the team to second place at the 2025 CCS regionals and its first state qualification since 2006.
- Ran a 16:28 5K personal record; finished first on the team in five of eight races and earned Most Valuable Player.

World Vision Global 6K - Team Captain

August 2022 - May 2025

- Led three charity run teams over three years, raising \$16,400 to provide clean-water access for 328 people.

Honors & Activities: AP Scholar with Honor; Eta Sigma Alpha; WBAL Champion; USATF Junior Olympic National Qualifier; Bob Shore Grand Prix; Pride Hustle and Desire Award (cross country).