

BRENDEN KOO

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SUMMARY

Mechanical engineering M.S. Candidate at Stanford University with a multidisciplinary background in mechanical engineering, computer science, and product design, aiming to leverage the unique strengths of each field to develop innovative solutions. Collaborative and resilient, I thrive under pressure and embrace challenges that drive collective success.

EDUCATION

Master of Science in Mechanical Engineering (Mechatronics) Apr 2023 - Mar 2026 (Expected)

Stanford University | Stanford, CA

- GPA: 3.828/4.000
- Course Assistant | CS 148: Introduction to Computer Graphics and Imaging

Bachelor of Science in Product Design Engineering

Sept 2019 - June 2023

Stanford University | Stanford, CA

- GPA: 3.875/4.000
- Completed a minor in Computer Science

PROFESSIONAL EXPERIENCE

Swope Design Solutions, Mechanical Engineering Intern

June 2025 - Sept 2025

- Spearheaded the Design for Manufacturing work for a CNC-turned promotional spinner, designed CAD and CAM for mass-production and reduced per-unit cycle time.
- Supported prototype production for multiple high-profile client projects — produced parts via CNC and SLA, and documented build and assembly procedures.
- Created SolidWorks engineering drawing packages for three large-assemblies, adhered to GD&T ASME Y14.5 standards.

Buoyant Aero, Mechanical Engineering Intern

Nov 2023 - Jan 2024

- Designed and iterated mechanical components using Fusion360; produced multiple iterations via FDM in a quick timeline to streamline product development process.
- Developed hands-on experience manufacturing custom parts on manual mill and lathe.

Virtius, Product Design Intern

July 2023 - Dec 2023

- Designed and implemented a landing page via Figma and Webflow, informing gymnastics fans of the Virtius company, services provided, and a teaser of the Virtius product in development.
- Developed an interactive Unity demo (C#) to highlight the Virtius user flow in context.

Zelle | Early Warning Services, Product Design Intern

May 2022 - Aug 2022

- Redesigned Zelle's implementation guide (dFIUX) to clarify critical UI flows and improved clarity for engineers/designers.
- Prototyped different ways to increase engagement of content presented in the dFIUX.

SKILLS

Computer-Aided Design

SolidWorks, HSMWorks, KiCAD, Fusion360, GD&T (ASME Y14.5), FDM/SLA 3D printing, Milling, Turning, Computer Numerical Control (CNC) milling and turning

Programming and Tools

Python, C++, C, C#, PyCharm, MPLAB, Unity, Visual Studio

Prototyping and Design

Figma, Rapid Prototyping, Design Sketching, Blender, Web Development (WordPress, Webflow), Adobe Creative Suite