

Johan A. S. Yost

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uberschnellracing.com | [Project Portfolio](#)

Engineering Interests: Biomedical Devices, Manufacturing Engineering, Research and Laboratory-Based Engineering, Technical Entrepreneurship

Education

Colorado State University (CSU), Fort Collins, CO

Bachelor of Science, Biomedical Engineering and Mechanical Engineering

Minor, Mathematics

Certificate, Entrepreneurship

GPA: 3.55 / 4.00

Expected Graduation: May 2028

Master of Science, Mechanical Engineering

Accelerated Master's Program

Expected Graduation: December 2029

Manufacturing and Product Design Experience

- Machined precision aluminum components on a Haas CNC mill, executing CAD-driven manufacturing workflows using SolidWorks, including tool selection, fixturing, tolerancing, and finishing operations
- Designed and analyzed consumer tool products employing injection-molded polymer handles, cast aluminum components, and drop-forged steel heads using design for manufacturability and assembly (DFMA) principles
- Applied manufacturing processes including CNC machining, injection molding, forging, knurling, and surface finishing in a laboratory environment
- Evaluated manufacturing tradeoffs involving production volume, cost, ergonomics, durability, mechanical performance, and safety considerations
- Documented manufacturing processes and design decisions to support repeatability, quality, and compliance

Research and Scholarly Experience

Multicultural Undergraduate Research Art and Leadership Symposium (MURALS) | Undergraduate Research Scholar | Colorado State University | Oct 2023 – March 2024

- Selected as a MURALS Scholar supporting structured undergraduate research, innovation, and entrepreneurship
- Conducted research activities involving technical documentation, project scoping, and evaluation of real-world constraints
- Presented work through an abstract, poster, oral presentation, and one-on-one interviews

Clinical and Biomedical Experience

Hanger Clinic, Fort Collins, CO | Clinical Volunteer | Oct 2024 – Apr 2025

- Completed 70+ hours of clinical shadowing with certified prosthetists and orthotists
- Observed patient evaluations, socket fabrication, device fitting, gait training, and biomechanical analysis
- Assisted with inspection, cleaning, and minor repairs of prosthetic devices
- Gained exposure to clinical workflow and patient-centered design considerations

CSU Study Abroad: Prosthetic Innovation in Ecuador, Range of Motion Project (ROMP) | May 2024

- Worked alongside clinicians serving under-resourced communities
- Created molds of patients' residual limbs and fabricated six custom fiberglass prosthetic sockets
- Integrated sockets with prosthetic hardware, enabling five individuals to walk again, including one bilateral amputee
- Balanced mechanical performance, durability, cost, and long-term maintainability in a resource-constrained clinical environment
- Developed an engineering mindset centered on practicality, reliability, and accessibility
- Followed clinical safety protocols and fabrication best practices while working in a low-resource biomedical laboratory environment

BMES CASE Project, Colorado State University | Design Team Member | 2024 – Present

- Supported design adaptations to a Subaru Baja vehicle to enable hands-free driving for a student without arms
- Executed mechanical modifications, including replacement of the steering column, starter, battery, seats, and interior trim in accordance with safety requirements and system integration constraints
- Collaborated with interdisciplinary teams to assess safety, usability, and mechanical feasibility

Engineering Projects

- CNC Machined Coaster Project, Haas CNC vertical mill
- Screwdriver Manufacturing Process Comparison Project
- Multi-material precision desk clock, brass, aluminum, steel, and acrylic
- Custom 3D-printed automotive components designed in SOLIDWORKS

Technical Skills

- CAD (SOLIDWORKS) and CNC manufacturing workflows
- CNC machining and fixturing
- Manufacturing process selection and Design for Manufacturability and Assembly (DFMA)
- Prototyping, machining, and assembly
- Product design and trade study analysis
- Laboratory practices, equipment operation, documentation, and safety awareness

Certifications

- Haas CNC Operator
- Certified SOLIDWORKS Associate, CSWA

Work Experience

Independent Handyman Services | Windsor, CO | Owner and Operator | May 2024 – Present

- Provide landscaping, yard care, home repairs, and moving assistance
- Develop bids, schedule jobs, manage equipment, and ensure safe, timely completion
- Maintain direct client relationships and manage small business operations

Yost Enterprises LLC | Windsor, CO | Property Manager | Jun 2022 – Present

- Manage three rental properties, including tenant relations, maintenance, and repairs

Uber Schnell Racing | Windsor, CO | Race Technician & Driver | Apr 2009 – Present

- Build, maintain, and race performance vehicles
- Apply mechanical reasoning and structured troubleshooting to performance systems
- Document setup changes and outcomes to guide future improvements
- Portfolio of racing systems and technical context available at uberschnellracing.com

Honors and Awards

- **CSU Walter Scott, Jr. College of Engineering Dean's Award** | Guaranteed Admission to Graduate School for Master's in Engineering | 2025
- **CSU MURALS Undergraduate Research Scholar** | Inclusive Excellence – Social Justice Enhancer Award | Innovation and Entrepreneurship Category | 2024
- **CSU Green and Gold Scholar** | Academic Merit | 2023 – present