

Keegan Usry

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Skills

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| <ul style="list-style-type: none">• 2D & 3D CAD Design (AutoCAD, ANSYS, Inventor, Fusion, SolidWorks)• DFM/DFA with GD&T | <ul style="list-style-type: none">• MATLAB• C Programming |
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Projects

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| Steel Part Design and Testing: | Daniels Manufacturing Corporation |
| <ul style="list-style-type: none">• Designed a critical steel component from conception through creation using CAD 3D modeling and 2D drafting, while incorporating GD&T principles compliant with ASME Y14.5• Performed CAD-based stress analysis and lifecycle simulations, applying FMEA principles to assess product longevity and determine failure points, improving reliability by 30%• Collaborated with R&D and manufacturing to preemptively solve design-to-production challenges | |
| CAD Build and Project Management: | TKE Advisor Board, INC |
| <ul style="list-style-type: none">• Utilized CAD software for 3D structural modeling of a large-scale, \$2,000 covered patio system• Performed shear and strain calculations, conducted materials research, analyzed cost-performance trade-offs, and led a construction team of 10 to meet project deadlines aided by Gantt charts | |
| Cycle Time Analysis: | Daniels Manufacturing Company |
| <ul style="list-style-type: none">• Conducted time studies on 20+ machined parts, uncovering a 15–20% unaccounted process time and delivering a detailed report that improved production estimates and scheduling accuracy | |
| Load-Bearing Wall Construction: | Catalyst Surf Shop |
| <ul style="list-style-type: none">• Designed and drafted construction plans for a custom load-bearing wall, managing a \$1,000 budget, limited resources, and a strict timeline while collaborating directly with the customer | |
| Pressure System Design: | TKE Advisor Board, INC |
| <ul style="list-style-type: none">• Applied dynamics and pressure principles to repair and improve the pressure system of a commercial-grade kegerator as well as whole process stability• Conducted a systematic risk evaluation to identify failure points and implemented system-level improvements in reliability and performance | |

Engineering and Work Experience

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| Daniels Manufacturing Company: Manufacturing Engineering Intern | August 2025 – Present |
| <ul style="list-style-type: none">• Created CAD models tailored for manufacturability, collaborating with machinists to ensure tolerance practicality, tool availability, and fixture compatibility• Gained hands-on experience with end-to-end manufacturing workflows, including milling, CNC machining, and precision tooling, strengthening technical skill in high-volume production environments• Conducted time studies on machine-floor operations to identify process bottlenecks and implement lean manufacturing improvements, reducing cycle times and waste | |
| Daniels Manufacturing Company: Design Engineering Intern | May 2025 – August 2025 |
| <ul style="list-style-type: none">• Developed and refined detailed 2D & 3D CAD models for mission-critical, military-grade tools, ensuring compliance with rigorous defense specifications• Executed and documented over 45 Engineering Change Orders, increasing process efficiency by 50% | |
| TKE Advisor Board, INC: Housing Chairman | January 2024 - Present |
| <ul style="list-style-type: none">• Led continuous construction efforts for an 8-bedroom apartment complex, overseeing HVAC upgrades, structural redesigns, and landscaping while ensuring code compliance, and on-time project delivery | |
| Musical Theatre Ponte Vedra (MTPV): Set Designer | August 2019 - 2024 |
| <ul style="list-style-type: none">• Constructed and designed 4 separate \$10,000 cradle to grave engineering projects from sketches using advanced shop equipment, providing quality for live performances• Directed a 10-person fabrication team by delegating tasks and managing timelines, while ensuring delivery of structurally sound designs under high-pressure production schedules | |

Education

University of Central Florida – Burnett Honors College
Bachelor of Science in Mechanical Engineering, GPA 3.3

Graduation: November 2026