

RYLAN RUNSKE

Mechanical Engineering Student — Product Design, DFM & Manufacturing Engineering

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U.S. Citizen (dual citizenship: United States / Sweden)

Auburn University — B.S. Mechanical Engineering | GPA: 3.28 | Expected May 2027

OBJECTIVE

Senior Mechanical Engineering student pursuing a design and manufacturing engineering role. Three internships of progressive responsibility in product design, mechanical engineering, and manufacturing process improvement, including production-released components and hands-on validation testing (bench, shake table, field). Strong foundation in DFM, CAD, surface modeling, and simulation.

TECHNICAL SKILLS

- Design & Analysis: SolidWorks (3D CAD/2D Drawings, FEA, Motion Studies), Siemens NX (Surface Modeling), Reverse Engineering, DFM, Tolerance Stack-Up, GD&T, PDM
- Manufacturing & Fabrication: Lean Manufacturing (Kanban, Kaizen, 5S), Six Sigma White Belt, Process Engineering, Additive Manufacturing, Manual Machining, Welding
- Test & Validation: Prototype Build & Test, Bench/Shake Table/Environmental Testing, Test Reporting
- Engineering Fundamentals: Thermodynamics, Fluid Mechanics, Mechanics of Materials, Statics, Dynamics, System Dynamics/Controls, MATLAB

WORK EXPERIENCE

Nautique Boat Company — Engineering Intern, Product Design & Development | Orlando, FL May 2026 – Aug 2026

- Owned component design projects end-to-end from concept through production release, including production jigs and fixtures
- Applied reverse engineering and surface modeling in Siemens NX to redesign legacy components for manufacturing
- Managed CAD data and revision control through PDM to support design reviews and production handoff
- Conducted on-water field testing for production validation, producing formal engineering test reports

Roswell Marine — Process Engineering Intern, Manufacturing | Rockledge, FL May 2025 – Aug 2025

- Analyzed production workflows across manufacturing departments, identifying inefficiencies and leading Kaizen events in two departments; implemented lean manufacturing solutions that improved Audio department workflow by roughly 15% across production and QC processes
- Implemented 5S standards and established a Kanban system in the Blend Department, balancing production load between Blend and Waterjet propulsion assembly lines, reducing inventory waste by roughly 20% and cutting Blend Department downtime by 10%

Roswell Marine — Mechanical Engineering Intern, PD&E | Rockledge, FL May 2024 – Aug 2024

- Designed and modeled original components in SolidWorks to support new product development; built and tested prototypes through bench and shake table testing

Roswell Marine — Assembly Technician (Seasonal) Jun 2020 – Aug 2023

- Built and visually/functionally inspected speakers, amplifiers, and wiring harnesses on the production line, meeting output quotas and flagging non-conforming units across three seasons

PROJECTS

ASNE PEP27 Electric Boat — Senior Design Project

- Team Manager leading a six-person team designing, building, and racing an uncrewed electric boat for the ASNE/Office of Naval Research Promoting Electric Propulsion (PEP27) national competition (Aug 2026 – Apr 2027)

Inverted Pendulum Control System — System Dynamics & Controls Coursework

- Modeled a rotary (Furuta) inverted pendulum via Lagrangian mechanics, designed a state-feedback controller via pole placement in MATLAB, and retuned gains on physical hardware to meet spec
- Only group in the class to successfully swing the pendulum up from a hanging-down start and hand off to stable closed-loop balance

Cruise Missile Sensor System — Measurement & Instrumentation Coursework

- Selected and specified a three-sensor navigation suite (IMU, radar altimeter, Doppler velocity sensor) for a missile guidance and navigation system, covering theory of operation, signal conditioning, and system-level integration; produced full technical report with cost analysis

LEADERSHIP & ATHLETICS

- Member, U20 Swedish Men's National Lacrosse Team — Bronze Medal, Poland, 2024
- Captain, High School Varsity Golf & Lacrosse | Dec 2020 – May 2023
- Volunteer - Give Kids the World | Aug 2018 – May 2023