

NATHAN SEGAR

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SUMMARY

Highly motivated senior engineering student with a strong foundation in nuclear engineering, power plant design, and nuclear materials. Fluent in Italian and eager to apply technical skills in an internship, contributing to innovative engineering projects while refining design expertise.

EDUCATION

University Of Rhode Island, Kingston, RI

Mechanical Engineering B.S., Minor in Nuclear Engineering, Italian B.A.

Expected Graduation: 2026

Current GPA: 3.3

Key Classes: Power Plant System Design and Safety Analysis

Space Nuclear Power and Propulsion

Materials in Nuclear Applications

Finite Element Method

Special Problems

Graphic Design

EXPERIENCE

URI Capstone, Kingston, RI

September 2024 - May 2025

Sponsor: PPL Electric Utilities

- Successfully creating a replicable process for converting coal power plants into nuclear power plants utilizing small modular reactor (SMR) technology, existing infrastructure, and decarbonization techniques
- Further developing a nuclear solution for the overwhelming energy demand of AI data centers, utilizing SMRs as a power source

Barnes Aerospace, Windsor, CT

May 2024 - September 2024

Manufacturing Engineer Intern

- Assigned a consumable tool consolidation project in order to consolidate the total number of tools purchased per month and optimize the number of machined parts per tool
- Responsible for completing control plans and NPI documentation to support programmers and process engineers
- Appointed to create storyboards for jobs and construct part loading instructions for operators using machines involved with those jobs
- Assisted with fluorescent penetrant inspection, GD&T projects, first piece and final inspection, and shop organization

General Dynamics Electric Boat, Groton, CT

June 2023 - February 2024

Engineering & Design Intern

- Worked in Department 437; Common Missile Compartment for SSBN Columbia Class Submarines
- Responsible for completing engineering calculations for force tolerances, stress tolerances, and other engineering analysis calculations
- Appointed to analyze part and product descriptions along with mechanical drawings while analyzing mechanical part functions and tolerances
- Responsible for completing change notice revisions along with technical variance documentation
- Comprised various spreadsheets for part tracking, reliability, and tolerance of parts

AFFILIATIONS / PROJECTS / RESEARCH

Radiation Detecting Robot (Special Problems)

January 2025 - May 2025

Designed a robot capable of detecting multiple radiation sources/spills within a lab environment.

University of Rhode Island Men's Lacrosse

January 2023 - May 2025

Captain and Executive Board Member (Social & Fundraising Chair)

Italian International Engineering Program (IEP)

September 2021 - Present

5 year co-op program with the 5th year spent in Italy studying and working abroad

Microfluidics and Microsystems Laboratory

January 2024 - May 2024

Researching a microfluidic device that leverages the separation ability of surface traveling acoustic waves (STAW) to separate microplastics from blood.

AIAA

January 2024 - May 2025

Member of the American Institute of Aeronautics and Astronautics URI chapter; Systems Engineer

SKILLS AND STRENGTHS

- Proficient in CAD
- Nuclear Engineering

- Aerospace
- MATLAB

- Power Plant/Reactor Design
- Design Engineering

- Manufacturing Processes
- Fluid Mechanics (CFD)