

BRIAN POLIS

Bap201@scarletmail.rutgers.edu | 856-246-8102 | Marlton, NJ

OBJECTIVE

Reliable, detail-oriented third year undergraduate student at Rutgers University looking to pursue a career in Mechanical or Aerospace Engineering. Interested in applying skills and education to a new opportunity.

EDUCATION

Rutgers University – *New Brunswick, NJ*

Anticipated Graduation: May 2024

- Bachelor of Science in Mechanical Engineering
- Cumulative GPA: 3.44

RELEVANT COURSEWORK

- Intro to Reliability Engineering
- Design of Mechanical Components
- Mechanical Properties of Materials
- Fluid Mechanics
- Thermodynamics
- Aerodynamics
- CAD in Mechanical Engineering
- Multiphysics Simulations

PROJECTS

Reliability and lifespan of Incandescent Bulbs vs LEDs

Spring 2023

- Designed electrical circuits using breadboards and resistors to measure the failure times of each light source
- Ran various test under different conditions (temperature, voltage, amperage) to simulate longer periods in a short amount of time
- Extracted raw data and converted it into reliability functions composing of hazard rate, failure density, and mean time to failure.

Investigation into Different NACA Airfoils and Their Effect on Flow Separation

Spring 2023

- Simulated turbulent airflow over NACA 2409 and NACA 3415 using ANSYS Fluent
- Constructed lift and drag coefficient vs angle of attack graphs, contours of pressure and velocity, and streamlines for both airfoils
- Analyzed how the geometry of an airfoil affects performance, and the properties of the boundary layer

PROFESSIONAL EXPERIENCE

J & K Total Construction LLC – *Marlton, NJ*

Summer 2019

Surveyor

- Monitored the progress of various renovation areas through detailed photography
- Documented the inventory of materials on a daily basis
- Relayed all relevant renovation information and updates to supervisor for review
- Analyzed routes to each renovation site to minimize time spent and miles traveled to maximize efficiency

TECHNICAL SKILLS

- Matlab
- SolidsWorks
- Simulink
- Microsoft Excel
- ANSYS

HONORS

- Dean's List Rutgers University Fall 2020, Fall and spring 2021, Spring 2022, Spring 2023