

# JONATHAN RILEY

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## EDUCATION

**Duke University**  
Durham, NC

**Expected Graduation: May 2022**

- **Major:** Bachelor of Science in Mechanical Engineering **Certificate:** Innovation and Entrepreneurship
- **GPA:** 3.29/4.00
- **Scholarship:** Barbara Caldwell Scientific Excellence Scholarship

## EXPERIENCE

**Ford Motor Company**

**May 2021 – July 2021**

*Feature Management Team (Remote), Dearborn, MA*

- Developed a conceptual analysis of the Zone Lighting Feature to connect with the logical basis and implementation of the feature to create a basis for feature improvement in the future.
- Analyzed customer usage data to validate existing use cases and brainstorm additional feature functionalities to address customer needs.
- Benchmarked feature hardware components and software connections to uncover potential cost savings and determine any advantages observed by our competitors

**Edwards Lifesciences**

**June 2020 – August 2020**

*Strategy and Execution Team (Remote), Irvine, CA*

- Created four unique views used for standardizing transfer project processes in-between corporate locations across multiple continents.
- Developed high level visuals for all transfer projects managed within the Global Supply Chain network which was utilized to increase project visibility and resource management for 70+ projects in the 2020 and 2021 fiscal year.
- Assisted team in the development of a standard business case process to assess current and future transfer projects to align with key strategic business initiatives and project prioritization.
- Trained and developed projects in Clarizen (PM System), worked with Clarizen IT team to implement key milestones and business attributes to create automated reporting for transfer projects.

**Independent Study – Hydroponic System Design**

**August 2020 – Current**

*Duke University (Remote), Anchorage, AK*

*I am developing a hydroponic system that will allow for small herbs/leafy greens to be grown autonomously*

- Improving technical skills by developing low-cost prototypes using Arduino Circuits, CAD Design, and Solar Cells
- Evaluated and analyzed existing products in market to identify key problems which I plan to address with my design
- Worked through project using the design process, emphasizing full understanding of the problem before developing solutions.

**Independent Study – Piezoelectric Tile Design**

**January 2021 – Current**

*Duke University, Durham, NC*

*We are designing a compressive tile that converts kinetic energy into electric energy that can be stored for future use*

- Developed low fidelity prototypes using Arduino circuits, electric coils, and CAD Design using the design process
- Benchmarked existing piezoelectric tiles to observe competitive advantages within their design

**Research Assistant (Aeroelasticity Group)**

**September 2019 – May 2020**

*LASCADE and Airfoil Rig Projects, Durham, NC*

- Designed the component blade support that allows for the oscillation of the middle blade in a seven-blade compressor linear cascade in Solidworks, while also being sturdy enough to remain functional after continuous testing.
- Assisted in development of other project systems including the blade excitation system and the pressure transducer measurement and calibration

## LEADERSHIP AND INVOLVEMENT

**National Society of Black Engineers**

**September 2018 – Present**

*Vice President, Durham, NC*

- Created directives for the 2021-2022 Academic Year alongside my president for our chapter and our executive board
  - Assisted management of event programming involving company sponsored meetings, community service events, and monthly general body meetings for over 25 active members
- Former Executive Roles: Programs Chair (2020-2021), Finance Chair (2019-2020)*

**Black Men's Union**

**September 2018 – Present**

*Treasurer, Durham, NC*

- Managed financial transactions for all events held during the year including organized group events, biweekly meetings (Brother's Breaking Bread), study sessions, and themed dinners
- Former Executive Roles: Programming Co-Chair (2020-2021), Communications Chair (2019-2020)*

**Eagle Scout Bronze Palm**

**June 2017 – Present**

## RELEVANT COURSEWORK

- **Engineering 344:** Control Systems **Math 353:** Ordinary and Partial Differential Equations **I&E 352:** Strategies for Innovation and Entrepreneurship

## SKILLS AND INTERESTS

- **Training, Language and Computer Programming:** Python, Excel, Solidworks, Edwards Mitral Academy, French
- **Interests:** Product Design, Men's Club Soccer, Snowboarding, Classical Violin