# Anuththara Sewvandi Jayasekara Alujjage

(928) 679 5904| aalujjag@purdue.edu

#### **Education**

Purdue University, West Lafayette, Indiana Direct-Doctor of Philosophy in Mechanical Engineering

Fall 2021

Northern Arizona University (NAU), Flagstaff, Arizona Bachelor of Science in Mechanical Engineering CEIAS Dean's list Graduated: Fall 2020 GPA 3.60/4.0

Spring 2018, Spring 2019-Spring 2020

## **Research Grants and Experience**

Undergraduate Researcher at NAU

May 2019-November 2020

- Worked on modifying Electrochemical and Mechanical Properties of Structural Supercapacitors
- Modifying an experimentation method to conduct pull-out tests to observe mechanical properties between the electrolyte and different types of fiber with and without adhesives
- Conducting pull-out tests using the '8874 Instron testing machine'

## Interdisciplinary Undergraduate research Grant (NAU)

July 2019-June 2020

- The First Place Award winner for the Department of Chemistry and Biochemistry for the poster presented at 2020 University Virtual Symposium, "Exploring Structure-Function Relationships: The Impact of Polymer Electrolyte Ordering on Ionic Conductivity"
- First recipients of the Urdea Research grant of \$5000 for interdisciplinary teams
- The Research focuses on Intermolecular ordering of polymer electrolytes in relation to conductivity
- Received training on Scanning Electron Microscope (SEM), Gamry (Electrochemical Impedance Spectroscopy),
   PARSTAT (Impedance analyzer) and Rheometer

# Mechanical Engineering Undergraduate Research (NAU)

September 2018-December 2018

• Analyzed data using MSMA image analysis for the research "Quantitative Analysis of Magnetic Shaped Alloys"

#### Human Powered Vehicle Competition hosted by ASME (NAU)

June 2020- November 2020

- Designed, fabricated and tested a single rider two-wheel recumbent bicycle
- Led the Carbon-Fairing sub-team

### Awards and Scholarships

Recipient of the Mechanical Engineering department's "EPIC" Award

November 2020

• This award was given in recognition of excellence in professional conduct and activities, and good academic performance in the Mechanical Engineering program at NAU

#### International Excellence Award

August 2017-August 2020

Awarded to International transfer students with a GPA of 3.0 higher at NAU

# **Employment**

Class Aid for a Smart Materials course at NAU (ME 575)

March 2021-April 2021

Worked on Piezoelectric materials and Energy Harvesters

Grader: main responsibility was to grade home works assigned each week (NAU)

• For ME450 – Heat Transfer

August 2020-November 2020

For ME240 – Material Science January 2020-May 2020

Class Aid for Adaptive Materials and Systems at NAU (ME475)

November 2018- December 2018

• Researched materials that can be used by the professor/students in the materials lab

## **Skills**

#### Software

- SolidWorks
- MATLAB
- Digimizer Image Analysis software
- Ansys Fluent
- LabView
- Micro-controller systems
- Instron Blue-hill application
- LEAP sensor application

# **Volunteer work and Societies**

Member of the American Society of Mechanical Engineers

Member of the Honor Society "National Society of Leadership and Success"

Volunteered at the Homecoming Parade- NAU

Volunteered at the Flagstaff Family Food Center-Flagstaff

Volunteered at the "Flagstaff Community Wellness and Healing Pow Wow"

Represented Sri Lanka at the NAU International Week and the Parade of Nations

Volunteered at Louie's Cupboard Food Donation Program-NAU

August 2020-ongoing
September 2018- November 2020

May 2018-March 2019

April 2018-April 2019

February 2019