

# HARI G. SUBRAMANIAN

## Education

2020 – 2024 Purdue University, West Lafayette, IN  
Bachelor of Science in Mechanical Engineering

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## Qualifications & Skills

- Exposed to plant settings with experience in Data Analysis, Reliability Engineering, & Project Management
  - Proficient in MATLAB, Minitab, Excel, GUI, C++, Java, P&IDs, PI Processbook, SOLIDWORKS
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## Relevant Experience

### **DuPont, Newark, DE**

(May 23' – Aug 23')

#### **Manufacturing Technology Engineer Intern**

- Conducted study on preform annealing temperature effects on 4079 O-Ring ID/CSD dimensional variability
- Consolidated Critical Equipment Spares List through OEM and R&M Recommendations for site
- Aided in start-up of new DuPont Kalrez Facility through creation of Service Contract/Postcure Oven PMP's
- Developed new SOP Documentation for Vertical Preform Storage Carousel for new Kalrez Facility
- Designed/Installed modified cage for Barwell Extruder in Clean Cell Manufacturing Area

### **Energy and Transport Sciences Lab, Purdue**

(Jan 23' – Present)

#### **Undergraduate Researcher**

- Learned Li-Ion battery parameters through on-going literature review
- Linked Static/Shared Libraries to enable cross-platform capability for Energy Storage Analytics GUI
  - o MacOS, Linux, and Windows usability was established, creating a universally viable product
- Incorporated new GUI functionalities to enable extended electrode relations for Li-Ion Battery Analysis
- Learned intricacies behind GUI and Physics Engine (backend system) to enhance future project efforts

### **Cargill Lactic Acid, Blair, NE**

(Jan 22' – Aug 22')

#### **Engineer Co-Op**

- Executed/Scoped capital & reliability projects worth up to \$400,000 to one of Cargill's most profitable BU's
  - Managed installation of 2205 Duplex piping stretching 200 feet of final product line carrying lactic acid to evaporator feed tank worth \$136,000
  - Scoped for the addition of a CIP loop to decrease fouling within shell and tube heat exchangers
    - o Designed solution with P&IDs redlines through renewed collaboration alongside the department engineers/technicians reducing maintenance overload
    - o Submitted Project Proposal to broader Capital Engineering Team for capital funding
  - Organized Daily Execution meetings aligning production efforts with business vision
  - Designed/Installed high-level switches, block valves, and new automation sequences
  - Coordinated with team for creating/managing maintenance work order checklist for 2022 plant shutdown
  - Tackled fermenter TAT for decreased downtime
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## Relevant Coursework:

Past: Fluid Mechanics, Machine Design, Differential Equations, Measurement & Control Systems I, Statics, Dynamics, Thermodynamics, EE Fundamentals, Mechanics of Materials, Manufacturing Processes

Current/Future: Heat & Mass Transfer, Measurement & Control Systems II, Senior Design

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## Community Service/Leadership

2017-2019

Library Tutor at Woodward Park Public Library: Tutored kids (K-12) in the Fresno areas with a variety of academic challenges, pushing me to constantly adapt to each student's needs.

## Extra-Curricular Activities

- Member of Indian Student Association (ISA) and CASO Club at Purdue
- Alumni of the Clovis North High School Orchestra (2<sup>nd</sup> Violin Principal leader), Fresno Madera Counties Music Educators Association (FMCMEA), Youth Philharmonic Orchestra (YPO) of Fresno