

# Aarya Dani

610-864-5813 | [AND321@pitt.edu](mailto:AND321@pitt.edu) | [linkedin.com/in/aarya-dani](https://www.linkedin.com/in/aarya-dani) | <https://aaryadani.github.io/>

## EDUCATION

---

### University of Pittsburgh - Frederick Honors Program

Pittsburgh, PA

*B.S.E in Chemical Engineering, Minors in Industrial Engineering, Economics & Chemistry*

December 2027

Relevant Coursework: Thermodynamics, Product Design I, Engineering Analysis, Differential Equations

## WORK EXPERIENCE

---

### Vaccine Manufacturing Co-op

May 2025 – August 2025

*Merck Sharp & Dohme*

*West Point, PA*

- Supported vaccine manufacturing by troubleshooting operational issues, ensuring GMP compliance
- Led deviation investigations to identify root causes and implement corrective actions
- Drove process improvements using Lean Six Sigma, enhancing yield and reducing cycle times

### Data Engineering Intern

June 2024 – August 2024

*Johnson & Johnson*

*Raritan, NJ*

- Collaborated with Quality & Compliance team to develop a data dictionary for over 40 unique drug products
- Converted over 15,000 source files using an automated R script, improving build time by over 50%
- Refactored and tested R code to support commercially launched products and improve performance

### Cardiovascular Research Assistant

February 2024 – May 2024

*University of Pittsburgh & UPMC*

*Pittsburgh, PA*

- Conducted experiments for cell culture, immunolabeling, fluorescence imaging, and image processing
- Used FlexCell to observe biochemical changes, cell migration and signaling under fluid shear load in vitro
- Managed and analyzed patient heart condition data, categorizing over 200 cases based on medical history

## LEADERSHIP EXPERIENCE

---

### Group Leader

January 2024 – Present

*Chi Alpha*

*Pittsburgh, PA*

- Led events with 100+ members while mentoring peers, fostering leadership, collaboration, and professional growth

### Opportunities Chair

August 2023 – Present

*SACNAS (Society for Advancement of Chicanos/Hispanics & Native Americans in Science)*

*Pittsburgh, PA*

- Coordinated 15+ events providing research opportunities and professional development for undergraduate students

### Representative

August 2024 – Present

*AIChE (American Institute of Chemical Engineers)*

*Pittsburgh, PA*

- Provided feedback for several professional development events, ensuring collaboration between members

## PROJECTS AND PUBLICATIONS

---

### YOLO Object Detection Project | *Python*

October 2024 – Present

- Developed a real-time object detection system using the YOLO model, detecting over 40 types of objects with accuracy and efficiency

### First Year Engineering Conference

January 2024 – April 2024

- Authored a paper with two students, regarding the application of artificial intelligence in waste management, with a focus on enhancing sustainability practices

### Engineering Sustainability Project | *C++*

March 2024 – April 2024

- Developed a program featuring quiz-based learning on paper topics, a user-authenticated sustainability game, and an interactive explanation of neural network operations

## TECHNICAL SKILLS

---

**Systems & Applications:** C++, MATLAB, R, Hugo, Jira, BitBucket, Terminal, ASPEN, Microsoft Office

**Laboratory Skills:** ELISA, Western Blotting, Southern Blotting, Gram Staining & Cloning, Mammalian Cell Culture, CRISPR gene editing, 3-D Printing, PCR, Gel Electrophoresis

**Laboratory Certifications:** OSHA, CPR, CITI Program, SChE Certificate Program