

# Pragatheiswar Giri

<https://pragatheis.github.io/>  
pgiri@purdue.edu

## EDUCATION

### BE IN BIOMEDICAL ENGINEERING

PSG College of Technology  
Cumulative GPA: 3.9 / 4.0

### MS IN ELECTRICAL AND COMPUTER ENGINEERING TECHNOLOGY

Purdue University  
GPA - 3.7

### PHD IN TECHNOLOGY

Purdue University  
GPA - 4.0  
(In Progress)

## COURSEWORK

### GRADUATE

Bioinformatics  
Big Data Machine Learning  
Machine Learning and Vision for IoT  
Statistical Machine Learning  
Data Analytics  
Programming Robots with ROS  
Introduction to Robotics  
(Teaching Asst. MFET 248)  
Electrical Energy Systems  
(Teaching Asst. ECET 376)

## SKILLS

### PROGRAMMING

Over 2000 lines:

C • C++ • Python • Matlab • R

Frameworks:

• ROS • Swift • Pytorch • TensorFlow  
• MLpack • Pandas • Sklearn

### WET LAB

Cell Culture. • Plate-based Assays.  
• Flow Cytometry. • Sample Preparation  
for quantitative Proteomics via  
LC-MS/MS.

### CERTIFICATIONS

- Python Programming
- Machine Learning
- Neural Network and Deep Learning
- Deutsch 1

## RESEARCH AND EXPERIENCE

### RSA INC. | SUPPLY CHAIN PRODUCT SPECIALIST

June 2022 – August 2022 | Winston-Salem, USA

- Established quality and testing protocols for LINAC parts. Also developed and drafted repair procedures.
- Lead the Supply Chain Effectiveness Initiative. Focused on data modeling and forecasting based on parts consumption and cost.
- Involved in the Knowledge Transfer Initiative. Contributed towards work order redesign and FSE Certification program.
- Actively involved in identifying and evaluating investment opportunities to expand repair/sustainability capabilities. This includes the acquisition of equipment and/or companies.

### CAMARILLO LAB, PURDUE CENTER FOR CANCER RESEARCH

| BIOINFORMATICS RESEARCH ASSISTANT

Dec 2019 – present | West Lafayette, USA

- Focusing on applying Electroporation for efficient drug delivery in breast cancer cells, especially using LDHB inhibitor Galloflavin.
- Optimized the electric field strength and pulse duration to increase the cell death in breast cancer cells, with limited death in non-cancerous cells.
- Performed label-free quantitative proteomics studies to understand the mechanisms of the enhanced effects.

### COLLABORATIVE ROBOTICS LAB, PURDUE UNIVERSITY

RESEARCH SCHOLAR

| **PROJECT 1** – Developed and optimized a neuromorphic architecture for printable organic neurons used in a Soft Robotic Skin with zero negative weights constrain. Mainly involved in developing the Neural Network algorithm and testing the electrical neurons.

| **PROJECT 2** – Built and Programmed a R/C race car to autonomously navigate the halls of a generated map at extreme speeds in a rally race. Utilized AMCL in ROS to acquire the IMU data and the Hokuyo LIDAR to localize.

### INDUSTRY 4.0 ROBOTICS LAB , PURDUE UNIVERSITY

TEACHING ASSISTANT

- FANUC LR Mate 200id 4s and Yamaha YK600XGL Robot - Programming, Control and Operation.
- Handling Robotics course MFET248 every Spring semester since 2019.

### SURGICAL ROBOTICS LAB, UNIVERSITY OF LEEDS

RESEARCH INTERN

- Synthesized a polymer brush functionalized surface on a PDMS for Urinary Catheterisation.