Anjali Padmanaban

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Enthusiastic engineering graduate seeking challenging opportunities in electronic design and automation.

EDUCATION

University of Central Florida
BS in Electrical Engineering
Mathematics Minor
Art Studio Minor
May 2022 | Orlando, FL
Cum. GPA: 3.36

COURSEWORK

Ordinary Differential Equations II
Matrix and Linear Algebra
Linear Control Systems
Analog Filter Design
Satellite Communications
Introduction to Robotic Systems
Embedded Systems
Computer Architecture

SKILLS

MATLAB • Multisim • EAGLE • AutoCAD
Python • Java • C, Assembly Language
Hugo • LaTeX• OpenCV • NumPy
Code Composer Studio • Arduino • MARS • Vivado
Components: Arduino, Raspberry Pi, MSP430 microcontrollers, LoRa REYAX Module, TPS61178 Boost Converter, AKK TS832+RC832, LF351D OpAmp, ARTIX-7FPGA, Crossfire Micro Rx
Lab testing equipment: Multimeter, Oscilloscope, Power Supplies
Microsoft Office: Word, Excel, PowerPoint
Satellite Communications: Uplink, Downlink Calculations

ACHIEVEMENTS

2022 1st Place FAR-51025 Launch Contest
2022 Senior Design Showcase Semi Finalist
2021 Dean's List
2019 Tableaux Vivant Exhibit
2017 Dean's List
2015 32nd/64 in FIRST Robotics Competition
2014 FLL: State 1st in Robot Game 1st in Robot Design

PRESENTATIONS

Real Time Finger Detection
Rover Payload Final Presentation
Rover Payload Final Demo

EXPERIENCE

Capacitech Energy | Electrical Engineering Intern
August 2021 - December 2021 | Orlando, FL
- Created MATLAB simulations to test the effects of supercapacitors in parallel with solar panels in small scale and large 100kW powered grid.
- Wrote captivating articles highlighting the company's innovation in creating flexible supercapacitors.

University of Central Florida | Undergraduate Research Assistant
January 2019 - May 2019 | Orlando, FL
- Collaborated with a mentor to develop a research question related to multi robot systems.
- Independently researched methods of mapping and navigation.
- Utilized MATLAB to create a mathematical model to demonstrate how a multi robot system works to cover as much area as possible.

FIRST | Participant & Coach
Jan 2013 - May 2017 | Jacksonville, FL
- Actively participated in FIRST competitions as Team Captain for FIRST Lego League (FLL), FIRST Robotics Competition (FRC), FIRST Tech Challenge (FTC) and coached FLL teams.
- Designed, built, and programmed robots to compete in the FIRST competitions and won several awards.

Kumon Math and Reading Center | Tutor
July 2013 - June 2022 | Jacksonville, FL
- Instructed students ages 4-18 in math and reading.
- Focused on guiding student in higher level math like trigonometry and calulus.
- Assisted students in developing critical reading skills.

PROJECTS

Aerojet Rocketdyne Radio Controlled Rover | Spring 2022
Designed, prototyped, and manufactured a rocket payload to meet strict engineering specifications. The payload consisted of a radio controlled rover and housing capsule with an automated landing system. A separate control station with video monitoring was also created. After being chosen out of 6 competing teams, collaborated with a rocket team to integrate the payload and rocket for the FAR-51025 Rocket Launch Contest.

Transistor Amplifier | Fall 2020
Designed a three-stage amplifier to meet design specifications using Multisim and Excel.

Real Time Finger Detection | Fall 2020
Made with OpenCV Python, this program will count the number of fingers displayed within the camera frame.

IEEE Southeastcon 2020 | Fall 2019 - Spring 2020
Collaborated with a group of engineering students to build a robot to compete in SOUTHEASTCON 2020 where the robot must retrieve and stack color coded blocks in the order of pi.

Mazebot | Fall 2017
Built using the mBot and programmed with mBlock, this robot can navigate any maze by utilizing ultrasonic sensors and a light sensor.