

# Lumbini Parnas

· ROBOTICS ENGINEER ·

100 Institute Road, Worcester, Massachusetts

+1 508-488-8301 | [lparnas@wpi.edu](mailto:lparnas@wpi.edu) | [Lumbini](#) | [lumbiniparnas](#)

"Be the change that you wish to see in the world."

## Education

### Worcester Polytechnic Institute

ROBOTICS ENGINEERING MAJOR

- Dean's List 2015-2016
- Rho Beta Epsilon - Robotics Engineering Honor Society

Massachusetts, U.S.A

2013 - May 2017

### International School of Kenya

INTERNATIONAL BACCALAUREATE

Nairobi, Kenya

2011 - 2013

## Experience

### Indian Space Research Organization - Satellite Centre (ISAC)

INTERNSHIP - INDUSTRIAL TRAINEE

- Worked with the various sub groups involved in satellite development like Spacecraft Mechanisms, Propulsion, Structures, AOCS, Thermal, Vibrations, Communications etc.
- Worked on a project with other interns to develop a proof of concept for the robotic colonization of the moon.

Bangalore, India

June 2016 - August 2016

## Projects

### MRI Compatible Fiber Optic Force Sensing

MAJOR QUALIFYING PROJECT

- Currently developing a force sensing technique using fiber optic force sensor to study the force profiles of tissue and help with needle guidance during a biopsy in the MRI

Massachusetts, U.S.A

2016 - 2017

### Internet of Things - ToasterIO

GRAND PRIZE WINNER - MLH HACK@WPI 2017

- Modified a toaster to work with the Amazon Echo and a Raspberry pi 3. This enabled the user to make toast by issuing a voice command to Alexa. The project was completed in 36 hours.

Massachusetts, U.S.A

Jan 13th-15th 2017

### 2-DOF Arm Manipulation

UNIFIED ROBOTICS - MANIPULATION

- Designed and implemented a control system design used on an automated 2-DOF arm to pickup blocks moving on a conveyor.
- The major components included PID controller, forward and inverse kinematics, infrared sensing and current sensing.

Massachusetts, U.S.A

Fall 2016

### "Get There" WPI-Navigation Application - Project Manager

PROJECT MANAGER & DEVELOPER

- Developed a desktop application for WPI campus navigation in Java paired with Java Swing.
- Mainly involved with the Graphical User Interface and Project Management of a team of 8 developers.

Massachusetts, U.S.A

Fall 2015

### Fire Fighting Robot

UNIFIED ROBOTICS - ACTUATION

- Designed, built and programmed a robot that navigated through a maze to find and extinguish a flame.

Massachusetts, U.S.A

Spring 2015

## Platforms and Software

C, C++, PYTHON, JAVA, JAVA FX, JAVA SWING, ORACLE - SQL PLUS

SOLIDWORKS, FEA, GIT, ECLIPSE, INTELLIJ, ARDUINO, MATLAB, AUTODESK INVENTOR, AUTOCAD, PHOTOSHOP, LATEX

OS X, UBUNTU, WINDOWS, ROBOT OPERATING SYSTEM

## Activities

2015-2016 **Satellite Development Club**, Command and Data Handling

2014-2016 **Robokids**, Member