# Aditi Tyagi

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## Education

**University of California, San Diego**
M.S. in Electrical Engineering
Sept 2018 - Present

**University of Houston**
B.Sc. in Computer Engineering
Sept 2014 - May 2018

## Skills

**Technology**
C • Python • JIRA• Testing/Validation • Data Analysis

**Others**
Hindi •Agile Project management

## Coursework

**Graduate**
Sensing and Estimation for Robotics
Programming for Data Analysis
Product Management and Marketing
Machine Learning for Image Processing

**Undergraduate**
Advanced Digital Design
Embedded Systems
Introduction to Sof. Eng.

## Extra Curricular

**Engineering Tutor**
Mentoring students in Analog Electronics and C Programming assignments and projects with emphasis on high performance numerical computations.

**Tao Beta Pi Mindset Co-ordinator**
To coordinate events of the Engineering Honor Society with middle school and high school for getting students interested in STEM majors as future career choice.

**Pratham UH Vice President**
To lead Pratham UH, an NGO, with the President to raise funds for under privileged students in India. Coordinate and manage all on and off campus events.

## Experience

**CalAmp** | New Product Introduction Intern
June 2019 - Present | Carlsbad, California

- Interface between SureDrive app software team and the device QA team for issuing solutions.
- Collaboration with the Testing and Q/A team for Regression tests of LMU 3240.
- Working with NPI team to automate the process of accessing item from Omnify and JIRA platforms using python scripts.
- Working with Data analysis team to analyze the LoJack's SureDrive app for beta testing of LMU 3040 series.

**Nanobioelectronics Lab** | Electronics Research Assistant
Sep 2018 - Jan 2019 | UC, San Diego

- Development and testing of flexible board for medical devices using Altium.
- Working in collaboration with teams on electronics development of power management for sensors, miniaturizing boards for capsule developments, optimizing processes using connectors.

**Clearview Sensing** | Technical Workshop Intern
July 2018 - Sept 2018 | Houston, Texas

- Updated the iterative software versions of the Oil Watcher Bench models for Raspberry Pi (Python).
- Tested and analyzed hardware configurations and updated iterative OWB models.
- Attended meetings with clients using the product and demonstrated calibration.

## Projects

**Object Detection using YOLO v2** |May 2019 - June 2019
Implementation of the YOLOv2 algorithm for multi-object detection on the images using 23 layer network trained on PASCAL VOC'12 dataset.

**H1-B data analysis** |March 2019 - April 2019
Performed data analysis on H1-B dataset from 2014 to 2017 to study the trends. Used python packages like Seaborn,Sklearn, dash and plotly.

**Simultaneous Localization and Mapping** |January 2019 - February 2019
Implemented SLAM with RGBD from Kinect one sensor to provide the structure of mapping and localization in an closed environment. Incorporated the IMU and encoder data set to build a 2-D occupancy grid map of the obstacles detected from the 2D laser range of the Lidar scanner.

**Color Segmentation using Logistic Regression** |January 2019 - February 2019
Trained a set of images to detect blue barrel and construct a bounding box encompassing it. Used Logistic regression model to segment the images and bounding box to represent the blue barrels in the test images.

**NASA Sponsored Mars Rover Prototype** |September 2017 - April 2018
Iterative prototyping of Mars Rover to handle reorientation and obstacle detection modules. Designed final prototype using PVC pipes and a dynamic suspension system integrated directly with the chassis. Focused on power management with multiple systems working in parallel. Worked with LiDAR using ROS on Ubuntu. Looked at the business aspect of project by exploring existing patents.

**Simon Says with password protection for multiple users** |February 2018 - April 2018
Programmed Simon Say's single player game with multiple user password authentication system using Verilog on FPGA. The user replicates sequence of RED LEDs using toggle swtiches and enters the response. The program used RAM to check highest score and replaced if higher.

**UPS Address Validation** |March 2018 - April 2018
Coded UI to enter address using Java. Created backend process that would read the address entered and create a open connection port via HTTP. Passed the user response in XML format and compared it using UPS API. Added to module for self correction of address.