# MEERA WAKIM

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### **EDUCATION**

The University of Texas at Austin

Bachelor of Science in Mechanical Engineering Texas Business Foundations Summer Institute Elements of Computing Certificate December 2018 Summer 2016 December 2018

*Related Courses:* Elements of Software Design, Probability and Statistics, Fluids, Dynamics, Thermodynamics, Computational Methods, Engineering Graphics and Design

### **EXPERIENCE**

Socially Intelligent Machines Lab Robocup League – Intern; Austin, Texas

Summer 2017

- Inerated OpenPose ito a R.O.S. (Robot Operating System) environment in order to successfully superimpose a skeleton over a human frame in order to implement gesture recognition.
- Created a R.O.S. node that uses Toyota HSR data as input in order to generate a PDF report of the team's task progress
- Collaborated with a team of 35 graduate students to prioritize certain challenges from the Robocup League, and to delegate tasking and set a definitive production timeline.

University of Texas Nuclear Robotics – Student Researcher; Austin, Texas

August 2015 – April 2016

- acilitated the development of a fully automated system that can execute object recognition using three-dimensional point cameras in order to quickly add new items to a recognition set
- Utilized Python in a Linux based operating system (Ubuntu) in order to run R.O.S.

Wood Group Mustang Engineering – Student Intern; Houston, Texas

October 2014 – April 2015

- Pioneered and developed 4D-modeling, which integrates 3D models with construction scheduling to visually simulate project build processes based on a specified timeline. This is now used to equip Mustang with a competitive edge
- Systematized Closeout Report Data Collection and constructed a program to predict future project statistics based on past information

#### **ACADEMIC PROJECTS**

ME 302 Reverse Engineering Project – Team Leader

January 2016 - May 2016

- Led a team of 5 people in deconstructing an aluminum portable bike pump
- Designed and displayed the parts three dimensionally using Solidworks; built a tangible model using rapid prototyping

## **LEADERSHIP EXPERIENCE AND ACTIVITIES**

**Robotics Automation Society (RAS)** – Committee Head, Historian, Team leader

September 2015 - Present

- Region V: Led an interdisciplinary team to compete in a national competition hosting 30 universities showcasing an
  autonomous laser-cut, holonomic drive robot that uses sensor input to map a field, visually process images, and lift field
  objects. Leadership responsibilities included mechanical design, responsibility delegation, and budget management
- Robotathon: Built and three dimensionally modeled a competitive lasercut holonomic drive robot.

### **Capital One Summit for Developing Leaders**

January 2017

 competed in a weeklong, highly selective case competition with a 15% acceptance rate and presented a web application designed to educate young consumers in financial responsibility and literacy.

## **Longhorn Racing Electric** – Machinist

September 2016 - Present

Interacted with steel and aluminum material to macine electric vehicle parts using horizontal band saws, lathes, and milling macines

American Society of Mechanical Engineers (ASME) – Active Member

September 2015 - Present

Women in Engineering (WEP) – Active Member

September 2015 - Present

Society of Petroleum Engineers (SPE) – Active Member

September 2015 - Present

## **HONORS**

UT Makeathon Competition - First Place

October 2016

 Designed and built a handmade system to transport delicate entities from an elevated position to ground level

Society of Petroleum Engineers Scholarship (8 semesters)

2015-2019

Texas Exes Alumni Scholarship (2 semesters)

2015-2016

Excellence in Technical and Career Education Award

2015

# **ADDITIONAL INFORMATION**

Computer Skills: Python, Java, Matlab, R (statistical computing), Solidworks, Processing Graphics Library, HTML, CSS, MS Word, Excel Engineering Skills: Machine Shop Training (i.e. milling machine, lathe), Wood Shop Training, Laser Cutter Operation, 3D Printing, PDS Primavera Project Scheduling

Languages: Fluent in English and Arabic, Conversational Mandarin	