

# AISHWARY JAGETIA

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## EDUCATION

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<b>Worcester Polytechnic Institute (WPI), Worcester, MA, USA</b> Master of Science in Robotics Engineering, CGPA: 4.00/4.00	<b>August 2017 - May 2019</b>
<b>Symbiosis International University (SIU), Pune, India</b> Bachelor of Technology in Mechanical Engineering, CGPA 3.747/4.00	<b>June 2013 - May 2017</b>
TFI LEaRN Semester Exchange (Highly Selective)	<b>August 2016 - December 2016</b>
<b>Nanyang Technological University (NTU), Singapore</b> International Summer School	<b>July 2014 - July 2014</b>
<b>Berlin School of Economics and Law, Berlin, Germany</b>	

## SKILLS AND CERTIFICATION

<b>Computer Skills</b>	Python, MATLAB, Simulink, ARGoS, Buzz, C++, Tensorflow, Keras, ABB Robot Studio, Cura (3D Printing), Assembly Programming System, Standard Time Data System, Arduino
<b>Design Software</b>	Pro/E, PTC Creo, AUTOCAD, CATIA, Pro/E, Solidworks, ANSYS, NX Siemens, Sketch-up, Microsoft Office (Excel, Word, PowerPoint, OneNote)
<b>Relevant Courses</b>	Foundation of Robotics, Synergy of Human and Robotic System, Deep Learning for Adv Robots, Robot Control, Robot Dynamics, Swarm Intelligence
<b>Certificates</b>	Certified Robotics Engineer (Mozilla Open Badge), CampWorks Technologies Pvt. Ltd Certificate of Course Completion - Hexapod Robot, Technophilia Systems

## EXPERIENCE

<b>Neurala, Inc., Boston, USA</b> Research Engineer   Internship	<b>May 2018 – Present</b>
<b>General Motors India Pvt. Ltd, Pune, India</b> Project Trainee   Internship	<b>December 2015 - June 2016</b>
<ul style="list-style-type: none"><li>Improved productivity by introducing 13 industrial robots and line balancing.</li><li>Improved more than 120 Standard Operation Sheet based on time study using STDS software.</li><li>Trained and implemented Assembly Processing System (APS) Software.</li><li>Improved Hours Per Unit (HPU) with an increment in utilization percentage from 79% to 90%, value-added work from 59% to 62% and decrement in over speeding from 25% to 11%.</li></ul>	

## PROJECTS

<b>Expectation Algorithm (ExA): A Socio-inspired Optimization Methodology, SIU</b>	<b>January 2017 - May 2017</b>
<ul style="list-style-type: none"><li>Developed a new socio inspired Expectation Algorithm (ExA), an unconstrained optimization technique.</li><li>Expectation Algorithm was validated by 50 benchmark problems and it outperformed existing algorithms (PSO, CMAES, ABC, JDE, CLPSO, and IA) resulted by Wilcoxon Signed Test.</li></ul>	
<b>Predicting Grade of Road for Autonomous Vehicles Using Supervised Deep Learning, WPI</b>	<b>August 2017 - December 2017</b>
<ul style="list-style-type: none"><li>Led the project, with successful implementation of the model in real time grade evaluation.</li><li>Developed a deep convolutional neural network architecture using Keras with Tensorflow backend, to train the labeled dataset of Inertial measurement unit (IMU) and Global positioning system (GPS) readings.</li></ul>	
<b>Design of a low-cost robotic system to aid in the rehabilitation of stroke patients, WPI</b>	<b>August 2017 – December 2017</b>
<ul style="list-style-type: none"><li>Led Mechanical work stream of Haptic device, worked in CAD modeling, 3D printing and Hardware systems.</li><li>Designed a haptic device with 6-DOF system along with the implementation of Dynamic Motion Primitives (DMP), Motion Capture (MO-CAP) system and newly developed rehabilitation game.</li></ul>	
<b>Robotic Control of a Surgical Laser Waveguide using ABB Robot, AIM Lab, WPI</b>	<b>January 2018 – April 2018</b>
<ul style="list-style-type: none"><li>Control of the laser position, with the development of motion primitives for laser scanning and focus adjustment on tissue.</li><li>Simulation on ABB Robot Studio and Hardware implementation using GUI-Movelt-ROS communication channel.</li></ul>	
<b>Occlusion-Based Cooperative Transport with a Swarm of Mobile Robots, NEST Lab, WPI</b>	<b>March 2018 – April 2018</b>
<ul style="list-style-type: none"><li>Proposed and simulated a method to overcome concavity in the objects by concave filling using mobile robots (Khepera IV).</li><li>Implemented an occlusion based collective transport using swarm of mobile robots (Khepera IV) in a decentralized manner.</li></ul>	
<b>Adaptive Trajectory Control for a Robotics Arm Subject to Varying Load, WPI</b>	<b>March 2018 – April 2018</b>
<ul style="list-style-type: none"><li>Examined two advanced Adaptive Control methods of a manipulator robot carrying a time varying payload.</li><li>Compared both the methods with detailed analysis and various experimentation, discussing of pros and cons of each.</li></ul>	