AISHWARY JAGETIA

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EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA, USA

August 2017 - May 2019

June 2013 - May 2017

Master of Science in Robotics Engineering, GPA: 4.00/4.00

Symbiosis International University (SIU), Pune, India

Bachelor of Technology in Mechanical Engineering, CGPA 3.747/4.00

TFI LEaRN Semester Exchange (Highly Selective)

August 2016 - December 2016

Nanyang Technological University (NTU), Singapore

International Summer School

July 2014 - July 2014

Berlin School of Economics and Law, Berlin, Germany

SKILLS AND CERTIFICATION

Computer Skills Python, MATLAB, C++, Simulink, Theano, Tensorflow, Keras, Cura (3D printing), APS

(Assembly Programming System), STDS (Standard Time Data System), Arduino

Design Software Pro/E, PTC Creo, AUTOCAD, CATIA, Pro/E, Solidworks, ANSYS, NX Siemens, Sketch-up, Microsoft Office

(Excel, Word, PowerPoint, OneNote)

Relevant Courses Foundation of Robotics, Synergy of Human and Robotic System, Deep Learning for Adv Robots,

Robot Control, Robot Dynamics, Swarm Intelligence

Certificates Certified Robotics Engineer (Mozilla Open Badge), CampWorks Technologies Pvt. Ltd

Certificate of Course Completion - Hexapod Robot, Technophilia Systems

EXPERIENCE

General Motors India Pvt. Ltd, Pune, India

December 2015 - June 2016

Project Trainee

- Improved productivity by introducing 13 industrial robots and line balancing.
- Improved more than 120 Standard Operation Sheet based on time study using STDS software.
- Trained and implemented Assembly Processing System (APS) Software.
- 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%.

PROJECTS

Predicting Grade of Road for Autonomous Vehicles Using Supervised Deep Learning, WPI August 2017 - December 2017

- Led the project, with successful implementation of the model in real time grade evaluation.
- 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.

Design of a low-cost robotic system to aid in the rehabilitation of stroke patients, WPI August 2017 – December 2017

- Led Mechanical work stream of Haptic device, worked in CAD modeling, 3D printing and Hardware systems.
- 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.

Expectation Algorithm (ExA): A Socio-inspired Optimization Methodology, SIU

January 2017 - May 2017

- Developed a new socio inspired Expectation Algorithm (ExA), an unconstrained optimization technique.
- 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.

CURRENT PROJECTS

Robotic Control of a Surgical Laser Waveguide using ABB Robot, AIM Lab, WPI

January 2018 - Present

- Control of the laser position, with the development of motion primitives for laser scanning and focus adjustment on tissue.
- Required skills: C++, ROS, ABB Robot Studio, Computer Vision, Rapid Prototyping

Collective Transport with a Swarm of Mobile Robots, NEST Lab, WPI

February 2018 - Present

- Devising an algorithm for collective transport of an object by Swarm robots.
- Required skills: ARGoS, Buzz, C++, Artificial Intelligence

Upgrading API of the Humanoid Atlas Robot, WHRL Lab, WPI

February 2018 - Present

- Upgrading API to be compatible with the latest version of IHMC controller and ROS Simulation.
- Required skills: C++, ROS, Gazebo, API