Parv K. Parkhiya

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EDUCATION

Carnegie Mellon University – School of Computer Science Pittsburgh, PA
Master of Science, Robotics System Development (in-progress) August 2018 - May 2020

International Institute of Information Technology (IIIT) Hyderabad, India
Bachelor of Technology, Electronics and Communication | *GPA: 9.91/10* August 2014 - May 2018

RESEARCH EXPERIENCE

Robotics Research Center, IIIT Hyderabad, India
Honours Student under Dr K Madhava Krishna June 2016 - May 2018

- Conceptualized and Implemented Object oriented Simultaneous Localization and Mapping (SLAM) and demonstrated improvements in challenging scenarios over existing state of the art methods
- [Publication]: (ICRA 2018) – "Constructing Category-Specific Models for Monocular Object SLAM"

PROJECTS

IIIT, Hyderabad

Doubly Convolutional Neural Network (DCNN) January 2017 - May 2017

- Implemented DCNN (TensorFlow) where parameter sharing across filters improved generalization

Lane Detection Module for Autonomous Car August 2016 - December 2016

- Engineered lane detection module (C++, OpenCV) using particle filter and digital image processing

Augmented Reality (AR) for 3D Room Decor August 2016 - December 2016

- Developed robust marker detection followed by gaussian blending to create augmented picture

SKILLS

Programming Languages: C, C++, Verilog, VHDL, Python
Libraries: Optimizers (Ceres-Solver, GTSAM, GCO), LIBSVM, OpenCV, TensorFlow
Tools: ROS, Linux, Gazebo, Unity, Matlab, Cadence, Xilinx Vivado
Systems: Microcontroller (Arduino, AVR, VEX), FPGA (ZedBoard), Quadcopter (Parrot Bebop, AR)

SELECTED COURSEWORK

Computer Vision	Statistical Methods in AI	Linear Control System
Mobile Robotics	Learning for Manipulation (in-progress)	Engineering Systems

AWARDS

Institute Gold Medal IIIT Hyderabad, India | for graduating B. Tech class of 2018

ACTIVITIES

Coordinator of Literary Club IIIT Hyderabad, India | June 2016 - May 2017