Karnik Ram

web: karnikram.info

email: karnikram@gmail.com
github:/karnikram

Interests

Visual SLAM, 3D Computer Vision

Education

International Institute of Information Technology, Hyderabad, India (IIIT-H) 2018 - 2021
M.S. by Research in Computer Science & Engineering
Thesis: Robust Visual-inertial Odometry for Highly-dynamic Scenes
Advisor: Dr. K. Madhava Krishna
Cumulative Grade Point Average: 9.50/10

Sri Sivasubramaniya Nadar College of Engineering, Chennai, India (SSN) 2013 - 2017
B.Eng. in Electronics & Communication Engineering (ECE) from **Anna University**, Chennai

Publications

INFER: Intermediate Representations for Future Prediction
Shashank Srikanth, Junaid Ahmed Ansari, R. Karnik Ram, Sarthak Sharma, J. Krishna Murthy, K. Madhava Krishna
In proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems, 2019

CalibNet: Geometrically-Supervised LiDAR - Camera Extrinsic Calibration using 3D Spatial Transformer Networks
Ganesh Iyer, R. Karnik Ram, J. Krishna Murthy, K. Madhava Krishna
In proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems, 2018

Experience

International Institute of Information Technology, Hyderabad, India Fall 2019
Teaching Assistant
Designed and evaluated assignments, and held tutorials for the graduate course in Mobile Robotics.

ETH Zurich Summer 2019
Robotics Summer School Student
Worked on a semi-autonomous ground robot for search-and-rescue applications.

Mobile Robot Programming Toolkit Summer 2018
Google Summer of Code Student Developer
Developed a GUI app for the extrinsic calibration of range and visual sensors.

International Institute of Information Technology, Hyderabad, India May 2017 - April 2018
Research Intern in the Robotics Research Center
Worked on markerless LiDAR-camera extrinsic calibration for an autonomous car.

Navstik Autonomous Systems, Pune, India Summer 2016
Computer Vision Intern
Developed and evaluated GPU-accelerated person tracking algorithms for a drone.

Relevant Coursework

Graduate: Computer Vision, Machine Learning, Mobile Robotics, Topics in Applied Optimization, Topics in Optimization on Manifolds
Undergraduate: Robotics & Automation, Digital Image Processing, OOP & Data Structures, Computer Architecture, Probability & Random Processes, Embedded & Real Time Systems

Awards & Grants

- **ETH Robotics Summer School Travel Grant** 2019
- **Best Senior Year Project**, ECE Department, SSN 2017
- **SSN Trust Funding for Student Projects** 2014, 2015

Student Activities

- Conceived, developed, and maintained **The SSN App** - the official mobile app of SSN. 2014 - 2017
- **Event Coordinator**, SSN-ECE Tech Club 2016 - 2017

Technical Skills

Tools & Libraries: OpenCV, ROS, PCL, Matlab, Git | Familiar: Qt, Android, Eage EDA, LaTeX
Programming Languages: C/C++, Python | Familiar: Java