# SUNDARA TEJASWI DIGUMARTI


Postdoctoral Research Associate
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## Education

**PhD. in Robotics** (2019) — ETH Zürich, Switzerland
*Semantic Segmentation and Mapping in Natural Environments* — Disney Research

**MSc. in Robotics, Systems and Control** (2012 -2014) — ETH Zürich, Switzerland
*Re-acquisition of People using Clothing Characterization* — Disney Research

**B.Tech in Electrical Engineering** (2008 - 2012) — IIT Jodhpur, India
*Development of a Smart Wheelchair*

## Work Experience

**Research Intern** - Winter 2013 — TCS Innovation Labs, India
*Developed gesture-based control for a service robot*

**Research Intern** - Summer 2011 — CNBI, EPFL, Switzerland
*Benchmarked classification techniques on the Opportunity - Human Activity dataset*

## Skills

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|---|---|
| Programming | C/C++, Python, ROS, Matlab, CUDA, AVR, Arduino |
| Deep Learning | Tensorflow, PyTorch |
| Creative Design | Blender, Illustrator, Photoshop, Krita |
| CAD | OnShape, Autodesk Fusion 360 |
| Circuit Design | KiCAD |
| Workshop Skills | 3D Printing, Laser Cutting, Soldering, Welding, Casting, Turning |

## Publications

1. S. T. Digumarti, L. M. Schmid, G. M. Rizzi, J. Nieto, R. Siegwart, P. Beardsley, C. Cadena
   *An approach for semantic segmentation of tree-like vegetation.*
   IEEE International Conference on Robotics and Automation (ICRA), 2019
2. S. T. Digumarti, J. Nieto, C. Cadena, R. Siegwart, P. Beardsley,
   *Automatic segmentation of tree structure from point cloud data*.
   IEEE Robotics and Automation Letters (RAL), 2018

3. S. T. Digumarti, G. Chaurasia, A. Taneja, R. Siegwart, A. Thomas, P. Beardsley,
   *Underwater 3D capture using a low-cost commercial depth camera*.
   IEEE Winter Conference on Applications of Computer Vision (WACV), 2016
4. M. Kriegleder, S. T. Digumarti, R. Oung, R. d'Andrea,
   *Rendezvous with bearing-only information and limited sensing range*.
   IEEE International Conference on Robotics and Automation (ICRA), 2015
5. R. Chavarriaga, H. Sagha, A. Calatroni, S. T. Digumarti, G. Tröster, J. D. R. Millán, D. Roggen,
   *The Opportunity challenge: A benchmark database for on-body sensor-based activity recognition.*
   Pattern Recognition Letters, 34(15), 2013
6. A. Trivedi, A. Singh, S. T. Digumarti, D. Fulwani, S. Kumar,
   *Design and implementation of a smart wheelchair*.
   Advances in Robotics, International Conference of Robotics Society of India, 2013
7. H. Sagha, S. T. Digumarti, J. D. R. Millán, A. Calatroni, D. Roggen, G. Tröster, D. Bannach,
   P. Lukowicz, A. Ferscha, R. Chavarriaga,
   *Workshop on robust machine learning techniques for human activity recognition: Activity recognition challenge*.
   IEEE International Conference on Systems, Man, and Cybernetics (SMC), 2011
8. H. Sagha, S. T. Digumarti, J. D. R. Millán, R. Chavarriaga, A. Calatroni, D. Roggen, G. Tröster,
   *Benchmarking classification techniques using the Opportunity human activity dataset*.
   IEEE International Conference on Systems, Man, and Cybernetics, 2011

## Awards and Achievements

1. Reached the final round of the IROS Open Cloud Robotics Table Organization Challenge, 2020
2. Best Paper Award at Advances in Robotics, Pune, India, 2013
3. Cleared the 1st round of Bristol's Basecamp Enterprise competition, 2018-19
4. Won gold at national level Shotokan Karate competition, 2005

## Languages

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|---|---|
| English, Telugu, Hindi | Fluent |
| German | Conversational |
| French, Sanskrit | Beginner |

## Hobbies

Painting Sculpting Table-tennis Hiking Cooking Video games