

# Siddhartha Chandra

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## Education

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| 2014–2018 | <b>PhD in Machine Vision</b><br>INRIA Galen & Ecole Centrale-Supélec Paris                              |
| 2007–2013 | <b>Bachelor of Technology (Honours) + Master of Science by Research</b><br>IIIT Hyderabad. CGPA: 9.3/10 |

## Research Positions

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|------------|---|
| 2019-today | <b>Applied Scientist, Amazon Lab-126, USA</b>                                       |
| 2018-2019  | <b>Research Scientist, Amazon Lab-126, USA</b>                                      |
| 2018       | <b>Computer Vision Post-Doctoral Researcher, SNCF &amp; Railenium, Paris</b>        |
| 2017       | <b>Research Intern, Facebook Artificial Intelligence Research, Paris</b>            |
| 2014–2018  | <b>PhD Student, INRIA Galen &amp; Centrale-Supélec Paris</b>                        |
| 2009–2013  | <b>Research Assistant, Center for Visual Information Technology, IIIT Hyderabad</b> |
| 2010–2011  | <b>Research student visitor, Visual Geometry Group, University of Oxford</b>        |

## Selected Publications

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| 2020 | <b>Box2Seg: Attention Weighted Loss and Discriminative Feature Learning for Weakly Supervised Segmentation</b> S Chandra*, V Kulharia* et al. <i>ECCV, ONLINE</i>              |
| 2020 | <b>Deep Learning-Based Concurrent Brain Registration and Tumor Segmentation</b> T. Estienne, Siddhartha Chandra et al. <i>Journal: Frontiers in Computational Neuroscience</i> |
| 2019 | <b>Proof of Correctness and Time Complexity Analysis of a Maximum Distance Transform Algorithm</b> M. Sahasrabudhe & Siddhartha Chandra <i>ArXiv</i>                           |
| 2019 | <b>Learning to Generate Synthetic Data via Compositing</b> Siddhartha Chandra*, Shashank Tripathi* et al. <i>CVPR, USA</i>   |
| 2018 | <b>Best Machine Learning Algorithms for Brain Tumor Segmentation.</b> S. Bakas, Siddhartha Chandra et al. <i>International Multimodal Brain Tumor Segmentation Challenge</i>   |
| 2018 | <b>Context Aware 3D CNNs for Brain Tumor Segmentation.</b> Siddhartha Chandra, Maria Vakalopoulou et al. <i>MICCAI BrainLesion, Spain</i>                                      |
| 2018 | <b>Deep Spatio-Temporal Random Fields for Efficient Video Segmentation.</b> Siddhartha Chandra, Camille Couprie, Iasonas Kokkinos. <i>CVPR, USA</i>                            |
| 2017 | <b>Structured Output Prediction and Learning for Deep Monocular 3D Human Pose Estimation.</b> S. Kinauer, A. Guler, S. Chandra, I. Kokkinos. <i>EMMCVPR, Italy</i>             |
| 2017 | <b>Dense and Low-Rank Gaussian CRFs Using Deep Embeddings.</b> Siddhartha Chandra, Nicholas Usunier, Iasonas Kokkinos. <i>ICCV, Italy</i>                                      |
| 2016 | <b>Fast, Exact and Multi-Scale Inference for Semantic Image Segmentation with Deep Gaussian CRFs.</b> Siddhartha Chandra, Iasonas Kokkinos. <i>ECCV, Netherlands</i>           |
| 2016 | <b>Human Joint Angle Estimation and Gesture Recognition for Assistive Robotic Vision.</b> Alp Guler, Siddhartha Chandra, Iasonas Kokkinos et.al. <i>Oral, ECCV Workshop</i>    |
| 2015 | <b>Accurate Human-Limb Segmentation in RGB-D images for Intelligent Mobility Assistance Robots.</b> Siddhartha Chandra, S. Tsogkas, I. Kokkinos. <i>Oral, ICCV Workshop</i>    |
| 2015 | <b>Surface Based Object Detection in RGBD Images.</b> Siddhartha Chandra, Grigoris Chrysos, Iasonas Kokkinos. <i>Oral Presentation, BMVC, Wales</i>                            |
| 2013 | <b>Partial Least Squares Kernel for Computing Similarities between Video Sequences.</b> Siddhartha Chandra, C.V. Jawahar. <i>Oral Presentation, ICPR, Japan</i>                |
| 2012 | <b>Learning Non-Linear Subspaces using K-RBMs.</b> Siddhartha Chandra, Shailesh Kumar, C.V. Jawahar. <i>CVPR, USA</i>  |
| 2012 | <b>Learning Hierarchical Bag of Words using Naive Bayes Clustering.</b> Siddhartha Chandra, Shailesh Kumar, C.V. Jawahar. <i>ACCV, Korea</i>                                   |

## Patents

- 2019 | Learning Discriminative Features Through Attention For Weakly Supervised Segmentation
- 2019 | Task Aware Synthetic Data Generation by inserting 3D Avatars in Real World Images & Videos
- 2018 | Synthetic Data Generation to Fill Gaps in Data Distribution.

## Conference & Journal Reviewing History

- 2015-today | International Conference of Computer Vision
- IEEE Conference on Computer Vision & Pattern Recognition
- European Conference on Computer Vision
- Journal of Photogrammetry and Remote Sensing
- CARS
- Journal: Computer Vision & Image Understanding
- Journal: Neurocomputing
- International Conference on Advanced Video and Signal-based Surveillance
- Indian Conference on Vision, Graphics & Image Processing

## Other Positions

- ★ **Program Committee**, 2018 CFP Graphs in Biomedical Image Analysis Workshop GRAIL, MICCAI, Spain
  - ★ **System Administrator**, CVN, Centrale-Supélec Paris
  - ★ **System Administrator**, CVIT, IIIT Hyderabad
  - ★ **Teaching Assistant** for the following courses at IIIT Hyderabad through the 3<sup>rd</sup> – 5<sup>th</sup> year: **Computer Vision** (1 semester), **C Programming** (2 semesters), **Algorithms** (1 semester), **Information Technology** (2 semesters).
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