

Siddhartha Chandra

<https://siddharthachandra.github.io/>

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Education

- 2014–2018 **PhD in Machine Vision**
INRIA Galen & Centrale-Supélec Paris
- 2007–2013 **Bachelor of Technology (Honours) + M.S. by Research**
IIIT Hyderabad. CGPA: 9.3/10
- 2006–2007 **AIEEE All India Rank 2532 (99.64 percentile)**
IIT All India Rank 3879 (99.14 percentile)
- 2004–2006 **ISC XIIth Board**
Overall Percentage: 94.0% *St. Joseph's College, Allahabad*
- 2004 **ICSE Xth Board**
Overall Percentage: 95.4% *St. Joseph's College, Allahabad*

Research Positions

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

Selected Publications

- 2018 **Best Machine Learning Algorithms for Brain Tumor Segmentation.** S. Bakas, Siddhartha Chandra et al. *International Multimodal Brain Tumor Segmentation Challenge*
- 2018 **Context Aware 3D CNNs for Brain Tumor Segmentation.** Siddhartha Chandra, Maria Vakalopoulou et al. *MICCAI BrainLesion, Spain*
- 2018 **Deep Spatio-Temporal Random Fields for Efficient Video Segmentation.** Siddhartha Chandra, Camille Couprie, Iasonas Kokkinos. *CVPR, USA*
- 2017 **Structured Output Prediction and Learning for Deep Monocular 3D Human Pose Estimation.** S. Kinauer, A. Guler, S. Chandra, I. Kokkinos. *EMMCVPR, Italy*
- 2017 **Dense and Low-Rank Gaussian CRFs Using Deep Embeddings.** Siddhartha Chandra, Nicholas Usunier, Iasonas Kokkinos. *ICCV, Italy*
- 2016 **Fast, Exact and Multi-Scale Inference for Semantic Image Segmentation with Deep Gaussian CRFs.** Siddhartha Chandra, Iasonas Kokkinos. *ECCV, Netherlands*
- 2016 **Human Joint Angle Estimation and Gesture Recognition for Assistive Robotic Vision.** Alp Guler, Siddhartha Chandra, Iasonas Kokkinos et.al. *Oral, ECCV Workshop*
- 2015 **Accurate Human-Limb Segmentation in RGB-D images for Intelligent Mobility Assistance Robots.** Siddhartha Chandra, S. Tsogkas, I. Kokkinos. *Oral, ICCV Workshop*
- 2015 **Surface Based Object Detection in RGBD Images.** Siddhartha Chandra, Grigoris Chrysos, Iasonas Kokkinos. *Oral Presentation, BMVC, Wales*
- 2013 **Partial Least Squares Kernel for Computing Similarities between Video Sequences.** Siddhartha Chandra, C.V. Jawahar. *Oral Presentation, ICPR, Japan*
- 2013 **Sparse Discriminative Fisher Vectors in Visual Classification.** Vinay Garg, Siddhartha Chandra, C.V. Jawahar. *ICVGIP, India*
- 2012 **Learning Non-Linear Subspaces using K-RBMs.** Siddhartha Chandra, Shailesh Kumar, C.V. Jawahar. *CVPR, USA*
- 2012 **Learning Hierarchical Bag of Words using Naive Bayes Clustering.** Siddhartha Chandra, Shailesh Kumar, C.V. Jawahar. *ACCV, Korea*

Patents

2018 | **Task Aware Synthetic Data Generation.** *Patent Filed*

Workshops Organized

2018 | CFP Graphs in Biomedical Image Analysis Workshop GRAIL, MICCAI, Spain.

Conference & Journal Reviewing History

2015-2019 | ★ 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 on Computer Vision & Image Understanding ★ Neurocomputing ★ International Conference on Advanced Video and Signal-based Surveillance ★ Indian Conference on Vision, Graphics & Image Processing

Relevant Research Projects

Deep Learning	Visual Body Fat Estimation from Camera Pictures Advanced Algorithms for Estimating Visual Body Fat for Health & Wellness.
Deep Learning	Task Aware Synthetic Data Generation Learning to generate synthetic data for training Image Classification, Object Detection models, thereby alleviating the need for costly manual annotations.
Deep Learning	Multi-Scale Inference for Dense-Labeling Tasks with Deep Gaussian CRF Learning multi-scale pairwise interactions via Gaussian-CRFs for a variety of dense-labeling and regression tasks in an end-to-end deep learning architecture.
Human Pose ROS	Real-Time Human Joint Angle Estimation (<i>part of successfully concluded EU Project</i>) Research for MOBOT (EU Project): deep learning pipeline implemented for real-time performance on the Robotics Operating System.
Deep Learning	Facial Landmark Localization using Deep Structured Prediction End-to-end deep DPMS for face detection and landmark localization.
Deep Learning	LSTMs for semantic segmentation (<i>Ongoing</i>) Training conditional LSTMs for semantic segmentation.
Deep Learning	Human part segmentation in RGB-D Images Learning to parse humans in RGB-D images from diverse data using deep networks.
Pictorial Structures	Surface based Object Detection for RGB-D Images Employing 3-D models for better initializing a mixture of Deformable Part Models.

Other Positions

- ★ Working as **System Administrator** for CVN, Centrale-Supélec Paris. *Setting up GPU servers.*
- ★ Worked as **System Administrator** for CVIT, IIIT Hyderabad. *Familiar with Sun-Grid Engine, among other Linux Administration tools.*
- ★ Worked as a **Teaching Assistant** for the following courses at IIIT Hyderabad through the 3rd – 5th year: **Computer Vision** (1 semester), **C Programming** (2 semesters), **Algorithms** (1 semester), **Information Technology** (2 semesters).