Siddhartha Chandra

https://siddharthachandra.github.io/

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Education

2014–2018	**PhD in Machine Vision** **INRIA Galen & Ecole Centrale-Supélec Paris**
2007–2013	**Bachelor of Technology (Honours) + Master of Science by Research** Major: Computer Science. Research Thesis: *Learning Representations for Computer Vision* **IIIT Hyderabad.** CGPA: 9.3/10

Research Positions

2023-today	**Machine Learning Consultant, PinnacleWorks, India**
2023-today	**Machine Learning Consultant, Spren, USA**
2021-2023	**Senior Applied Scientist, Amazon Halo, USA**
2019-2021	**Applied Scientist, Amazon Halo, USA**
2018-2019	**Research Scientist, Amazon Halo, 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**

Summary of Research Contributions In the Industry

PinnacleWorks	Supervising research and development of science on speech recognition and generation.
Spren	Supervising research and development of Body Composition Science.
Amazon Halo	Lead scientist on Halo Body, supervising research, interns and scientific development of products, publishing research and patents, development of in-house machine learning libraries
SNCF Paris	Design, Deployment of Computer Vision system to automatically detect faults in train tracks
FAIR Paris	Research Intern with papers at ECCV, CVPR

Personal Ventures

2023 - Ongoing	**Artha.One**: Platform for Science & Entertainment. artha.one
2023 - Ongoing	**ArthaShri**: Marketplace for financial independence of women. arthashri.in
2023 - Ongoing	**Kritartha**: Vedic Astrology, Consultation & Healing artha.one/kritartha

Selected Publications

2022	**Smartphone Camera Based Assessment of Adiposity: A Multi-Site Validation Study** M Majumdar, S Chandra et al. *Nature Portfolio Journal on Digital Medicine*
2020	**Box2Seg: Attention Weighted Loss and Discriminative Feature Learning for Weakly Supervised Segmentation** S Chandra*, V Kulharia* et al. *ECCV, ONLINE*
2020	**Deep Learning-Based Concurrent Brain Registration and Tumor Segmentation** T. Estienne, Siddhartha Chandra et al. *Journal: Frontiers in Computational Neuroscience*
2019	**Learning to Generate Synthetic Data via Compositing** Siddhartha Chandra*, Shashank Tripathi* et al. *CVPR, USA*
2018	**Deep Spatio-Temporal Random Fields for Efficient Video Segmentation.** Siddhartha Chandra, Camille Couprie, Iasonas Kokkinos. *CVPR, USA*
2017	**Dense and Low-Rank Gaussian CRFs Using Deep Embeddings.** Siddhartha Chandra, Nicholas Usunier, Iasonas Kokkinos. *ICCV, Italy*

2016	**Human Joint Angle Estimation and Gesture Recognition for Assistive Robotic Vision.** Alp Guler, Siddhartha Chandra, Iasonas Kokkinos et.al. *Oral, ECCV Workshop*
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*
2016	**Fast, Exact and Multi-Scale Inference for Semantic Image Segmentation with Deep Gaussian CRFs.** Siddhartha Chandra, Iasonas Kokkinos. *ECCV, Netherlands*
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*
2012	**Learning Non-Linear Supspaces using K-RBMs.** Siddhartha Chandra, Shailesh Kumar, C.V. Jawahar. *CVPR, USA*
2010	**Oxford/IIIT - TRECVID 2010 Notebook Paper.** M. Juneja, Siddhartha Chandra, O. Parkhi, C.V. Jawahar, Andrea Vedaldi, M. Marszalek, Andrew Zisserman. *NIST, USA*

Patents

Filed	4 patents
2022	Segmentation using attention-weighted loss and discriminative feature learning
2022	Regional Body Composition From Two-Dimensional Color Body Images
2021	Generation of synthetic image data using three-dimensional models
2020	Generation of synthetic image data for computer vision models

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 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

- ⋆ **Area Chair**, 2023 British Machine Vision Conference, Aberdeen, UK
- ⋆ **Area Chair**, 2022 British Machine Vision Conference, London, UK
- ⋆ **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** (IIIT Hyderabad):Computer Vision, C Programming, Algorithms, Information Tech.

Skill Set

Programming	C, C++, Python, Bash, MATLAB
Libraries	`Caffe`, `Caffe-2`, `pyTorch`, `Eigen`, `CUDA`