

VIGHNESH BIRODKAR

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EDUCATION

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- MS in Computer Science – GPA: 3.93/4** 2015 - 2017
New York University - Courant Institute, New York, USA
- B.Tech Computer Science & Engineering – GPA: 8.05/10** 2010 - 2014
National Institute of Technology, Goa, India

PUBLICATIONS

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- Vighnesh Birodkar, Hossein Mobahi, Samy Bengio “**Semantic Redundancies in Image-Classification Datasets: The 10% You Don’t Need**” – *under review for ICML* January 2019
 - Emily Denton, Vighnesh Birodkar “**Unsupervised Learning of Disentangled Representations from Video**” – *Neural Information Processing Systems*, Long Beach, California December 2017
 - Marcelo Cicconet, Vighnesh Birodkar, Mads Lund, Michael Werman, Davi Geiger “**A convolutional approach to reflection symmetry**” – *Pattern Recognition Letters* August 2017

WORK EXPERIENCE

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- AI Resident, Google** June 2018 - Current
- Study semantic redundancies in machine learning datasets.
 - Investigate how CNNs learn to be invariant to semantic variation.
- Research Scientist, FeatureX, Inc.** June 2017- June 2018
- Implemented deep-learning algorithms for pan-sharpening, object detection and image alignment in satellite images.
 - Assisted with the development the company’s SaaS platform for satellite image analysis.
- Research Assistant, Prof. Davi Geiger** September 2016 - December 2016
- Action recognition in videos using Deep Neural Networks.
 - Study the effects of imposing linear constraints on latent vectors through time.
- Junior Data Scientist, NYU Centre for Data Science** September 2015 - May 2016
- Implemented machine learning algorithms for scikit-learn.
 - Created the project template for scikit-learn-contrib.
- Software Development Engineer, Samsung Research India** June 2014 - June 2015
- Embedded application development in Printers Division.
 - Revamped the Firmware Update process.

INTERNSHIPS

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- Deep Learning Intern, Butterfly Network Inc.** January 2017 - May 2017
- Developed deep-learning algorithms to assist capturing medically informative ultrasound views of the heart.
 - Defined data collection formats and implemented data collection and storage pipeline.
- Summer Intern, DeepMagic Inc.** June 2016 - August 2016
- Collected and augmented images.
 - Designed and deployed deep networks for image recognition.
- Google Summer of Code Student** June-September 2013 and 2014
- Implemented Region Adjacency Graphs for scikit-image and segmentation algorithms based on them (2014).
 - Revamped SimpleCV’s display module with interactive IPython compatibility (2013).
- Summer Intern, IIT Bombay** May 2013 - June 2013
- Designed GUI based Visual Programming Environment for Arduino Boards along with ports for Android, Windows and Linux.