

# 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

- 
- 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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- Research Scientist, FeatureX, Inc.** June 2017- Present
- 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, Python Software Foundation** June 2014 - September 2014
- Designed Region Adjacency Graph Data structures from scikit-image.
  - Implemented Region Adjacency Graph based segmentation algorithms.
- Google Summer of Code Student, SimpleCV** June 2013 - September 2013
- Designed a Display System for local applications in Python.
  - Designed a Display System for remote applications using Python, HTML and Javascript.
- Summer Intern, IIT Bombay** May 2013 - June 2013
- Designed a Visual Programming Environment for Arduino Boards
  - Ported the Visual Programming Environment for Windows, Linux and Android