

# VIGHNESH BIRODKAR

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## EDUCATION

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| <b>MS in Computer Science – GPA: 3.93/4</b><br><i>New York University - Courant Institute, New York, USA</i>           | <i>2015 - 2017</i> |
| <b>B.Tech Computer Science &amp; Engineering – GPA: 8.05/10</b><br><i>National Institute of Technology, Goa, India</i> | <i>2010 - 2014</i> |

## PUBLICATIONS

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| • <b>Proper Reuse of Image Classification Features Improves Object Detection</b><br>Cristina Vasconcelos, Vighnesh Birodkar, Vincent Dumoulin                  | <i>CVPR 2022</i>                        |
| • <b>The surprising impact of mask-head architecture on novel class segmentation</b><br>Vighnesh Birodkar, Zhichao Lu, Siyang Li, Vivek Rathod, Jonathan Huang | <i>CVPR 2021</i>                        |
| • <b>The iWildCam 2021 Competition Dataset</b><br>Sara Beery, Arushi Agarwal, Elijah Cole, Vighnesh Birodkar   | <i>ICCV 2021</i>                        |
| • <b>Semantic Redundancies in Image-Classification Datasets: The 10% You Don't Need</b><br>Vighnesh Birodkar, Hossein Mobahi, Samy Bengio                      | <i>arXiv 2019</i>                       |
| • <b>Unsupervised Learning of Disentangled Representations from Video</b><br>Emily Denton, Vighnesh Birodkar   | <i>NeurIPS 2017</i>                     |
| • <b>A convolutional approach to reflection symmetry</b><br>Marcelo Cicconet, Vighnesh Birodkar, Mads Lund, Michael Werman, Davi Geiger                        | <i>Pattern Recognition Letters 2017</i> |

## WORK EXPERIENCE

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| <b>Research Engineer (previously AI Resident), Google</b><br>• Published state-of-the-art models for the partially supervised instance segmentation task.<br>• Wrote and maintained object detection models for the open source TF Object Detection API.<br>• Developed internal models for Books, Nest, CrowdSource and Maps. | <i>June 2018 - Current</i>            |
| <b>Research Scientist, FeatureX, Inc.</b><br>• Implemented deep-learning algorithms for pan-sharpening, object detection and image alignment in satellite images.<br>• Assisted with the development the company's SaaS platform for satellite image analysis.   | <i>June 2017- June 2018</i>           |
| <b>Research Assistant, Prof. Davi Geiger</b><br>• Action recognition in videos using Deep Neural Networks.<br>• Study the effects of imposing linear constraints on latent vectors through time.   | <i>September 2016 - December 2016</i> |
| <b>Junior Data Scientist, NYU Centre for Data Science</b><br>• Implemented machine learning algorithms for scikit-learn.<br>• Created the project template for scikit-learn-contrib.   | <i>September 2015 - May 2016</i>      |
| <b>Software Development Engineer, Samsung Research India</b><br>• Embedded application development in Printers Division.<br>• Revamped the Firmware Update process.  | <i>June 2014 - June 2015</i>          |