

Yani Ioannou

CONTACT INFORMATION	Jesus College Cambridge, Cambridgeshire CB5 8BL, UK	<i>E-mail:</i> (see website) <i>Website:</i> https://yani.io/annou <i>LinkedIn:</i> http://linkedin.com/in/yani
SKILLS SUMMARY	<ul style="list-style-type: none">• Microsoft Research Ph.D. Scholar, studying at the University of Cambridge under the direction of Prof. Roberto Cipolla and Dr. Antonio Criminisi (Microsoft Research)• Significant research experience in the fields of deep learning and computer vision, with an education at top research universities (Toronto, Cambridge), experience in one of the top industrial research labs in the field (Microsoft Research Cambridge), and software development experience at the largest software lab in Canada (IBM's Toronto Lab)• Open-source development, notably in the Linux kernel and Point Cloud Library (PCL)	
EDUCATION	University of Cambridge , Cambridge, United Kingdom <i>Nov. 2013 – Present</i> Ph.D. Student , Machine Intelligence Lab, Department of Engineering <ul style="list-style-type: none">• Microsoft Research Ph.D. Scholar, visiting student at MSR Cambridge• Supervisors: Prof. Roberto Cipolla, Dr. Antonio Criminisi (Microsoft Research), Dr. Matthew Brown (University of Bath)• Research Topic: Structural Priors in Deep Neural Networks• Transferred in Oct. 2015 from U. Bath after Dr. Brown moved to Google	
	Queen's University , Kingston, Ontario, Canada <i>Sep. 2006 – Mar. 2010</i> M.Sc. , School of Computing <ul style="list-style-type: none">• Supervisors: Dr. Michael A. Greenspan, Robin Harrap• Research Interests: 3D Computer Vision, Surface Processing, Object Recognition• Thesis Topic: Segmentation and Object Recognition in Mobile Urban LIDAR Data	
	University of Toronto , Toronto, Ontario, Canada <i>Sep. 2000 – May. 2006</i> B.Sc. Honours , Computer Science Co-op: Software Engineering <ul style="list-style-type: none">• Specialist : Computer Science: Software Engineering• Co-op: 1 year of industry experience (see Professional Experience)	
SELECTED PUBLICATIONS & PATENTS ¹	Deep Roots: Improving CNN Efficiency with Hierarchical Filter Groups Yani Ioannou, Duncan Robertson, Roberto Cipolla, Antonio Criminisi <i>30th IEEE Conference on Computer Vision and Pattern Recognition (CVPR)</i> Honolulu, Hawaii, USA <i>Jul. 21 – 26, 2017</i>	
	Measuring Neural Net Robustness with Constraints Osbert Bastani, Yani Ioannou, Leonidas Lampropoulos, Dimitrios Vytiniotis, Aditya Nori, Antonio Criminisi <i>13th Annual Conference on Neural Information Processing Systems (NIPS)</i> Barcelona, Spain <i>Dec. 5 – 10, 2016</i>	
	Refining Architectures of Deep Convolutional Neural Networks Sukrit Shankar, Duncan Robertson, Yani Ioannou, Antonio Criminisi, Roberto Cipolla <i>29th IEEE Conference on Computer Vision and Pattern Recognition (CVPR)</i> Las Vegas, Nevada, USA <i>Jun. 27 – 30, 2016</i>	
	Training CNNs with Low-Rank Filters for Efficient Image Classification Yani Ioannou, Duncan Robertson, Jamie Shotton, Roberto Cipolla, Antonio Criminisi <i>International Conference on Learning Representations (ICLR) 2016</i> San Juan, Puerto Rico <i>May 2 – 4, 2016</i>	

¹Please see my Google Scholar profile for a full list of publications and patents

Decision Forests, Convolutional Networks and the Models in-Between

Yani Ioannou, Duncan Robertson, Darko Zikic, Peter Kotschieder, Jamie Shotton, Matthew Brown, Antonio Criminisi

Microsoft Research Technical Report #2015-58

Apr. 1, 2015

Segmentation of Brain Tumor Tissues with Convolutional Neural Networks

Darko Zikic, **Yani Ioannou**, Antonio Criminisi, Matthew Brown

MICCAI workshop on Multimodal Brain Tumor Segmentation Challenge (BRATS)

Boston, Massachusetts, USA

Sep. 14, 2014

Emergency Detection and Response System and Method

Alex Mihailidis, Babak Tatti, **Yani Ioannou**, Jennifer Boger, James E. Gastle

United States Patent Application #13/655,920

April 25, 2013

Difference of Normals as a Multi-Scale Operator in Unorganized Point Clouds

Yani Ioannou, Babak Taati, Robin Harrap, Michael Greenspan

IEEE International Conference on 3D Imaging, Modelling, Processing, Visualization and Transmission (3DIMPVT)

Zurich, Switzerland

Oct. 13 – 15, 2012

PROFESSIONAL EXPERIENCE **Microsoft Research**, Cambridge, United Kingdom

Research Intern

Mar. 2014 – Dec. 2014

- Supervisor: Dr. Antonio Criminisi
- Worked with a team of researchers on a 9-month special research project exploring deep learning methods for supervised large scale visual recognition

University of Toronto/University Health Network, Toronto, Ontario Canada

Research Associate

Mar. 2011 – Nov. 2013

- Led research/devel. of the Personal Emergency Response System (PERS), a computer vision based fall detection system, hardware/software implementation of prototypes

IBM Canada Limited, Markham, Ontario Canada

DB2 Linux Tester/Developer, DB2 Linux Validation (Co-op)

Sept. 2004 – May 2005

- Validated DB2 for beta and release candidate Linux distributions on 4 different computer architectures, and numerous pre-release hardware platforms

VOLUNTEER EXPERIENCE **Linux Kernel - Open Source Software Development**

- Linux is the operating system used by 19 Million PCs, the 79% of smartphones running Android, and 97% of web servers, including those of Google, Facebook and Amazon
- Linux 2.6.13, “dynamic sysfs attribute” patch for driver core allowed significant clean-up of most kernel drivers, reducing some by up to 40% in binary module size. This significantly reduced the kernel’s binary size/compile time and allowed drivers to create an unlimited number of sysfs device attributes
- Linux 2.6.17, “IPMI sysfs” patch ported IPMI subsystem to the 2.6 sysfs/driver model

Point Cloud Processing Library (PCL) - Open Source Software Development

- PCL is an open source library for 3D computer vision and processing of point clouds.

TEACHING EXPERIENCE

I have over 200 hours of experience in front of a classroom, as both an undergraduate and graduate teaching assistant at four universities.