# **GURKIRT SINGH**

gurkirt.singh-2015@brookes.ac.uk <a href="http://gurkirt.github.io/">http://gurkirt.github.io/</a>

#### EDUCATION & EXPERIENCE

Borealis AI, Canada Research Intern; Supervised by Greg Mori & Leonid Sigal	Feb. 2019 - May 2019
Disney Research, USA R&D Lab Associate (Research Intern); Supervised by Leonid Sigal & Andreas Lehrmann	Feb. 2017 - Jul. 2017
Oxford Brookes University, UK Ph.D in Computing and Maths; Supervised by Fabio Cuzzolin	Sep. 2015 - Nov. 2019
Siemens Corporate Research, India Research Engineer	Oct. 2013 - Aug. 2015
INRIA, France Research Intern & Engineer; Supervised by Radu Horaud & Georgios Evangelidis	Feb. 2013 - Sept. 2013
Institut Polytechnique de Grenoble, France MSc in Informatics at ENSIMAG; Supervised by Radu Horaud & Georgios Evangelidis	Sep. 2012 - Jun. 2013
University of Edinburgh, UK Research Intern; Supervised by Bob Fisher	Jan. 2010 - May 2010
VIT University, Vellore, India B.Tech; Supervised by Bob Fisher & Arulmozhivarman Pachiyappan	Aug. 2006 - May 2010

#### RESEARCH INTERESTS

Computer Vision Causal Representation Learning, Video Feature Learning,

Spatiotemporal Action Detection, Future Action Prediction

#### SELECTED PUBLICATIONS

# Recurrent Convolutions for Causal 3D CNNs

Gurkirt Singh and Fabio Cuzzolin

Workshop on Large Scale Holistic Video Understanding, ICCV, 2019

# An End-to-End Baseline for Video Captioning

Silvio Olivastri, Gurkirt Singh and Fabio Cuzzolin

Workshop on Large Scale Holistic Video Understanding, ICCV, 2019

#### Action Detection from a Robot-Car Perspective

Gurkirt Singh\*, Stephen Akrigg\*, Valentina Fontana\*, Manuele Di Maio, Suman Saha, Fabio Cuzzolin Preprint arXiv: 1807.11332, 2018

# TraMNet - Transition Matrix Network for Efficient Action Tube Proposals

Gurkirt Singh, Suman Saha and Fabio Cuzzolin

Asian Conference on Computer Vision (ACCV), 2018

#### Incremental Tube Construction for Human Action Detection

Harkirat Behl, Michael Sapienza **Gurkirt Singh**, Suman Saha, Fabio Cuzzolin and Philip Torr British Machine Vision Conference (BMVC), 2018

#### **Predicting Action Tubes**

Gurkirt Singh, Suman Saha and Fabio Cuzzolin

Workshop on Anticipating Human Behavior, ECCV 2018

# Online Real-time Multiple Spatiotemporal Action Localisation and Prediction

Gurkirt Singh, Suman Saha, Michael Sapienza, Philip Torr and Fabio Cuzzolin International Conference on Computer Vision (ICCV), 2017

#### AMTnet: Action-Micro-Tube Regression by end-to-end Trainable Deep Architecture

Suman Saha, Gurkirt Singh and Fabio Cuzzolin

International Conference on Computer Vision (ICCV), 2017

### Deep Learning for Detecting Multiple Space-Time Action Tubes in Videos

Suman Saha, Gurkirt Singh, Michael Sapienza, Philip Torr and Fabio Cuzzolin

British Machine Vision Conference (BMVC), 2016

# Untrimmed Video Classification for Activity Detection: Submission to ActivityNet Challenge Gurkirt Singh and Fabio Cuzzolin,

ActivityNet Challenge Workshop, CVPR 2016

# Skeletal Quads: Human action recognition using joint quadruples

Georgios Evangelidis, Gurkirt Singh, Radu Horaud

International Conference on Pattern Recognition Vision (ICPR), 2014

# Continuous Gesture Recognition from Articulated Poses

Georgios Evangelidis, **Gurkirt Singh**, Radu Horaud

Workshop on Looking at People (Chalearn), ECCV 2014

#### AWARDS & CHALLENGES

<b>Doctoral Consortium</b> : Selected for Doctoral Consortium Award ICCV-2019	2019
Best Reviewer: Selected as the best reviewer for ICCV-2019	2019
PhD Scholarship: 150th Anniversary PhD Scholarship, Oxford Brookes University	2015
Charades-Challenge 2017: Acton Recognition and Segmentation tasks (Rank: $2/10$ and $3/6$ )	2017
ActivityNet-Challenge 2017: Classification tasks (Rank 3/29)	2017
<b>ActivityNet-Challenge 2016</b> : Classification and Detection tasks (Rank $10/24$ and $2/6$ )	2016
Chalearn-Challenge 2014: Looking at People Challenge (Gesture Detection Task Rank 7/17)	2014

#### **SKILLS**

**Programming**: Python, Matlab, C/C++, Lua

Deep Learning Platforms: PyTorch, Torch, Caffe, TensorFlow

Libraries: Numpy, Scipy, Scikit-Learn, OpenCV, Eigen, Kinect SDK

Operating Systems: Linux, macOS, Windows

#### TEACHING EXPERIENCE

Machine Learning: Teaching Assistant (Postgraduate) 2018

Computer Vision and Machine Learning: Guest lecturer (Postgraduate) 2016, 2017, 2018

Understanding Programming: Lab Assistant (Undergraduate) 2015, 2016

#### REVIEWER

Best reviewer award ICCV 2019

TPAMI 2017, 2018, ICCV 2019, CVPR 2018, BMVC 2019, and IJCIA 2017, 2018, 2019

# MORE INFORMATION

Google Scholar: https://scholar.google.com/citations?user=w8XHUMIAAAAJ&hl=en

Homepage: http://gurkirt.github.io/

Github: https://github.com/gurkirt

LinkdIn: https://www.linkedin.com/in/gurkirt/