GURKIRT SINGH

gurkirt.singh-2015@brookes.ac.uk ⋄ http://gurkirt.github.io/

EDUCATION & EXPERIENCE

Borealis AI, Canada *Feb. 2019 - May 2019*
Research Intern
Supervised by Greg Mori & Leonid Sigal

Disney Research, USA *Feb. 2017 - Jul. 2017*
R&D Lab Associate (Research Intern)
Supervised by Leonid Sigal & Andreas Lehrmann

Oxford Brookes University, UK *Sep. 2015 - Nov. 2019*
Ph.D in Computing and Maths
Supervised by Fabio Cuzzolin

Siemens Corporate Research, India *Oct. 2013 - Aug. 2015*
Research Engineer

INRIA, France *Feb. 2013 - Sept. 2013*
Research Intern promoted to Research Engineer
Supervised by Radu Horaud & Georgios Evangelidis

Institut Polytechnique de Grenoble, France *Sep. 2012 - Jun. 2013*
Master of Science in Informatics at ENSIMAG
Supervised by Radu Horaud & Georgios Evangelidis

University of Edinburgh, UK *Jan. 2010 - May 2010*
Research Intern
Supervised by Bob Fisher

VIT University, Vellore, India *Aug. 2006 - May 2010*
B.Tech. in Electronics and Instrumentation Engineering
Supervised by Bob Fisher & Arulmozhivarman Pachiyappan

RESEARCH INTERESTS

Computer Vision Causal Representation Learning, Video Feature Learning, Spatiotemporal Action Detection, Action Prediction

SELECTED PUBLICATIONS

Recurrence to the Rescue: Towards Causal Spatiotemporal Representations
Gurkirt Singh and Fabio Cuzzolin
Preprint arXiv: 1811.07157, 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

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

Skeletal Quads: Human action recognition using joint quadruples
Georgios Evangelidis, **Gurkirt Singh**, Radu Horaud
International Conference on Pattern Recognition Vision (ICPR), 2014

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
Anticipating Human Behavior (ECCV Workshop), 2018

Untrimmed Video Classification for Activity Detection: Submission to ActivityNet Challenge
Gurkirt Singh and Fabio Cuzzolin,
ActivityNet challenge (CVPR workshop) 2016

Continuous Gesture Recognition from Articulated Poses
Georgios Evangelidis, **Gurkirt Singh**, Radu Horaud
Chalearn Looking at People (ECCV workshop), 2014

CONTESTS & CHALLENGES

Charades-2017: Acton Recognition and Segmentation tasks (Rank: 2/10 and 3/6) 2017

ActivityNet-2017: Classification tasks (Rank 3/29) 2017

ActivityNet-2016: Classification and Detection tasks (Rank 10/24 and 2/6) 2016

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

Operating Systems: Linux and 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

TPAMI 2018, ICCV 2019, CVPR 2018, BMVC 2019, 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/`