

Gunnar Atli Sigurdsson

PhD Student, School of Computer Science, Carnegie Mellon University

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Academia

School of Computer Science, Carnegie Mellon University

Robotics Institute (PhD), Advisor: Abhinav Gupta
(Expected Graduation Fall 2019)

2014-Present

University of Iceland, Johns Hopkins University

(BSc, MSc), Advisor: Jerry L. Prince

2009-2014

Selected Publications

Google Scholar Profile: <https://scholar.google.com/citations?user=c1TKG0QAAAAJ&hl=en>

Gunnar A. Sigurdsson, Abhinav Gupta, Cordelia Schmid, Ali Farhadi, Karteek Alahari.

Charades-Ego: A Large-Scale Dataset of Paired Third and First Person Videos

Arxiv 2018 <https://arxiv.org/pdf/1804.09626.pdf>

Gunnar A. Sigurdsson, Abhinav Gupta, Cordelia Schmid, Ali Farhadi, Karteek Alahari.

Actor and Observer: Joint Modeling of First and Third-Person Videos

CVPR 2018 (**Spotlight Presentation**) <https://arxiv.org/pdf/1804.09627.pdf>

Gunnar A. Sigurdsson, Olga Russakovsky, Abhinav Gupta.

What Actions are Needed for Understanding Human Actions in Videos?

ICCV 2017 <http://arxiv.org/pdf/1612.06371.pdf>

Gunnar A. Sigurdsson, Santosh Divvala, Ali Farhadi, Abhinav Gupta.

Asynchronous Temporal Fields for Action Recognition

CVPR 2017 <http://arxiv.org/pdf/1612.06371.pdf>

Gunnar A. Sigurdsson, Olga Russakovsky, Ali Farhadi, Ivan Laptev, Abhinav Gupta.

Much Ado About Time: Exhaustive Annotation of Temporal Data

HCOMP 2016 (**Oral Presentation**) <http://arxiv.org/pdf/1607.07429.pdf>

Gunnar A. Sigurdsson, Gül Varol, Xiaolong Wang, Ali Farhadi, Ivan Laptev, Abhinav Gupta.

Hollywood in Homes: Crowdsourcing Data Collection for Activity Understanding

ECCV 2016 <http://allenai.org/plato/charades/>

Gunnar A. Sigurdsson, Xinlei Chen, Abhinav Gupta.

Learning Visual Storylines with Skipping Recurrent Neural Networks

ECCV 2016 <http://arxiv.org/pdf/1604.04279.pdf>

Andy J. Ma, Andong Zhan, **Gunnar A. Sigurdsson**, Nishi Rawat, Dale Needham, Suchi Saria.

Feasibility of a Non-Invasive Sensor for Measuring ICU Patient Mobility

Critical care medicine 2015 (**Research Citation Award**)

Research

PhD Research

Advisor: Abhinav Gupta, CMU

2014-Present

Ongoing work on understanding time information in Computer Vision. Projects include learning about human events (e.g. weddings) from photo albums on the web, and learning about human activities from crowdsourcing and holistic modelling of activities. For example, the Charades dataset. (www.cs.cmu.edu/~abhinavg/)

Visiting Researcher

INRIA - Karteek Alahari and Cordelia Schmid

2017

Joint understanding of first and third-person activity recognition. (thoth.inrialpes.fr/)

Academic Collaborator

Flickr (Yahoo Inc.)

2015

Collaborating with Yahoo scientists on understanding web-scale datasets of photo albums.

Research Assistant

Advisor: Suchi Saria, Johns Hopkins University

2014

IRB monitored research on automatically monitoring patients in the ICU. The approach focused on person detection and cost-effective feature combinations for tracking. (www.suchisaria.com/)

Research Assistant

Advisor: Jerry L. Prince, Johns Hopkins University

2012-2013

Research in image processing/analysis methods for diffusion MRI, including multi-fiber tractography.

(<http://iac1.ece.jhu.edu/>)

Research & Development

Nox Medical

2012

Research and development for a biomedical company. My research involved statistical analysis on data from a polysomnography device. (www.noxmedical.com/)

Research Assistant

California Institute of Technology, Advisor: Ali Hajimiri

2011

Research and prototyping a mm-wave hybrid power amplifier/on-chip radiator (Active Radiator). (www.chic.caltech.edu/)

Software Engineer

Landsvirkjun - The National Power Company of Iceland

2010-2011

Research and development of automatic methods in short-term energy generation planning/prediction. (www.landsvirkjun.com/)

Invited Talks

2018: CVPR 2018 Tutorial on Human Activity Recognition

2017: INRIA - Paris

2017: INRIA - Grenoble

2016: Deva Ramanan Lab, Carnegie Mellon University

2016: MultiComp Lab, Carnegie Mellon University

Teaching

Carnegie Mellon University

Guest Lecturer

2017-2018

Visual Learning and Recognition - Lecture on Deep Sequential Models

Carnegie Mellon University

Teaching Assistant

2015

Graduate Computer Vision, Homework and Review Sessions.

Outreach

CMU TechNights (Women@CS).

2015

90 minute interactive introduction to vision to middle school students.

University of Iceland

Teaching Assistant

2011-2012

Analysis and Design of Digital Circuits, Circuit Analysis and Synthesis.

University of Iceland

Tutor

2010

Biweekly sessions providing assistance with in Calculus, Linear algebra and Physics.

Selected Awards

AI3 Award

Allen Institute for Artificial Intelligence

2016

Hardware Donation

NVIDIA

2014

Research Assistantship

Image Analysis and Communications Laboratory, JHU

2013

Departmental Tuition Fellowship

Department of Electrical and Computer Engineering, JHU

2012-2014

Charles K. Willey Fund

American-Scandinavian Foundation

2012

Summer Undergraduate Research Fellowship
California Institute of Technology

2011

Service

CMU RI Qualifier Committee

Achal Dave, Brian Okorn, Nadine Chang, Bhavan Jasani, Junjiao Tian

2016-Present

Reviewer

CVPR, ICCV, ECCV, NIPS, IJCV, MVAP

2016-Present

Organizer

CVPR 2017 Workshop on Visual Understanding Across Modalities

2017

Admissions Committee

CMU RI

2015

Reviewer

IEEE Transactions on Human-Machine Systems

2015

Chairman of the IEEE Iceland student branch

Numerous seminars, competitions and tutorials

2011-2012

Employment

2014-Present: Abhianv Gupta, *Research Assistant*.

2017: INRIA, *Visiting Researcher*.

2016: Allen Institute for Artificial Intelligence, *AI2 Intern*.

2013: Image Analysis and Communications Laboratory, *Research Assistant*.

2012: Nox Medical, *Research and Development*.

2011: California Institute of Technology, *Summer Researcher*.

2010-2012: University of Iceland, *Teaching Assistant*

2010-2011: Landsvirkjun, Energy Division, *Software Developer*

2003-2009: City of Reykjavik, Burfell Hydropower Station, Egilsson LLC.

Skills

GitHub Profile: github.com/gsig

Coding: Python, PyTorch, MATLAB, C++, Hadoop

Languages: English, Icelandic, Danish

Other: Music Composition, Skiing, Programming, Classical Piano, Percussions