Vasili Ramanishka

CONTACT INFORMATION

Department of Computer Science
Boston University
Boston, MA

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RESEARCH INTERESTS

Computer Vision, Natural Language Processing, Machine Learning

My research interests are in the broad area of Artificial Intelligence with a focus on Vision and Language Understanding. This includes topics on the interpretability of deep learning models and techniques which provide insight into the model's decisions.

EDUCATION

Boston University, Boston, MA 2016 – 2020
PhD in Computer Science
Research Topic: *Describing and Retrieving Visual Content using Natural Language*
Advisor: Prof. Kate Saenko

University of Massachusetts Lowell, Lowell, MA 2015 – 2016
PhD in Computer Science. Transfer to Boston University
Research Topic: *Video Captioning and Semantic Textual Similarity*
Advisor: Prof. Kate Saenko

Institute of Cryptography, Telecommunications and Computer Science, Moscow, Russia 2006 – 2011
BS and MS in Applied Math (Cryptography)

WORK EXPERIENCE

Samsung AI Center, Mountain View, CA 2019
Research Intern
Research Topic: *Contextualized Image Retrieval using Relative Language Feedback*
Supervisor: Dr. Hongxia Jin

Honda Research Institute USA, Mountain View, CA 2018
Research Intern
Research Topic: *3D Traffic Scene Understanding*
Supervisor: Dr. Yi-Ting Chen
Implementation of semi-supervised algorithms for monocular depth estimation from video.

Honda Research Institute USA, Mountain View, CA 2017
Research Intern
Research Topic: *Event Detection using Multisensor Fusion*
Supervisors: Dr. Yi-Ting Chen, Dr. Teruhisa Misu
Developed algorithms for understanding driver behavior based on car sensors including the front-facing camera using event detection as a proxy: https://usa.honda-ri.com/hdd

DENIVIP Group, Moscow, Russia 2012-2014
Software Engineer
Supervisor: Denis Bulichenko
Lead programmer of the Load Balancing System for video content delivery which was deployed by multiple online streaming services including "now.ru".
Designed and implemented fault-tolerant distributed services in C++ for user-generated content storage and server-side editing for "Together Video Camera".
Implemented a scalable transcoding/editing system for audiovisual content.

Armed Forces of the Republic of Belarus, Minsk, Belarus 2011-2012
Research Associate - Parallel Computing

PUBLICATIONS

[1] H. Xu, B. Li, V. Ramanishka, L. Sigal, K. Saenko. **Joint Event Detection and Description in Continuous Video Streams**. *WACV 2019*

[2] V. Ramanishka, Y. Chen, T. Misu, K. Saenko. **Toward Driving Scene Understanding: A Dataset for Learning Driver Behavior and Causal Reasoning**. *CVPR 2018*

[3] V. Ramanishka, A. Das, J. Zhang, K. Saenko. **Top-down Visual Saliency Guided by Captions**. *CVPR 2017*

[4] V. Ramanishka, A. Das, K. Saenko, M. Rohrbach, S. Venugopalan, L. A. Hendricks, D. H. Park. **Multimodal Video Description**. *ACM Multimedia 2016*

[5] P. Potash, W. Boag, A. Romanov, V. Ramanishka, A. Rumshisky. **SimiHawk at SemEval-2016 Task 1: A Deep Ensemble System for Semantic Textual Similarity**. *Workshop on Semantic Evaluation, ACL 2016*

[6] H. Xu, S. Venugopalan, V. Ramanishka, M. Rohrbach, K. Saenko. **A Multi-scale Multiple Instance Video Description Network**. *Workshop on Closing the Loop between Vision and Language, ICCV 2015*

PROFESSIONAL ACTIVITIES

Reviewer for TIP, TNNLS, CVPR, ECCV, NIPS, ICME	2016-2018
Grant Recipient of AWS Cloud Credits for Research	2018
Invited speaker at the New England Computer Vision Workshop, Harvard University	2018
Lecture series "Introduction to Deep Learning" at Andersen Lab	2018
Invited speaker at University of California Berkeley	2018
Poster presentation at Amazon Gradute Symposium	2017
Invited speaker at Skoltech, Moscow	2016
Spotlight talk at ACM Multimedia, Amsterdam	2016
Mentor for David Donahue (UMass Lowell), Qili Zeng (Boston University)	2016-2018
Deep learning hardware enthusiast in IVC group at Boston University	2016-2018

RELEVANT COURSEWORK

Computer Vision, Machine Learning, Natural Language Processing, Computer Graphics, Operating Systems, Algorithms, Information Theory, Optimization Methods, Topics in Cognitive and Neural Systems: Visual Intelligence and Learning

TECHNICAL SKILLS

TensorFlow, PyTorch, Python, C++, OpenCV, Javascript, sklearn