JAESEONG LEE

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EDUCATION

University of Texas at Dallas, Richardson TX *May 2013*
B.S. in Electrical Engineering
University of Texas, Austin TX *May 2017*
M.S. in Electrical Engineering
University of Texas at Dallas, Richardson TX *Present*
Pursuing Ph.D. in Computer Science

PUBLICATION

· **Jaeseong Lee**, Pengyu Nie, Junyi Jessy Li, Milos Gligoric. Naturalness of Hardware Descriptions. In Proceedings of the 28th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE'20), Accepted, 2020

· Sungsoo Kim, Jin Soo Park, Christos Bampis, **Jaeseong Lee**, Mia Markey, Alexandros Dimakis, Alan Bovik. Adversarial Video Compression Guided by Soft Edge Detection. In 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2020), Accepted, 2020

· Nimish Kale, **Jaeseong Lee**, Reza Lotfian, and Roozbeh Jafari. Impact of Sensor Misplacement on Dynamic Time Warping Based Human Activity Recognition Using Wearable Computers. In Proceedings of the Conference on Wireless Health 2012 (WM'12), Accepted, June, 2012

RESEARCH EXPERIENCE

Software Engineering Group Aug 2021 - Present
Graduate Research Assistant, ***Supervisor: Prof.Wei Yang and Prof. Shiyi Wei*** *Richardson, TX*

· Developing a bimodal pre-trained model for programming language and natural language.
· Developing data-augmentation model for behavioral testing of Natural language processing models.

Software Engineering Group Aug 2018 - May 2021
Graduate Research Assistant, ***Supervisor: Prof.Milos Gligoric*** *Austin, TX*

· Analyzed fusion of natural language processing and software engineering.
· Analyzed naturalness of hardware description languages.
· Developed learning-based software engineering tools including code summarization and code completion.

Laboratory for Image and Video Engineering (LIVE Lab) Nov 2015 Dec 2016
Graduate Research Assistant, ***Supervisor: Prof.Alan Bovik*** *Austin, TX*

· Developed a learning based-video scene encoding and decodin scheme using GAN based adversarial autoencoder.
· Analyzed video BLIINDS video quality assessment (VQA) algorithm for developing a video archiving system.

INDUSTRIAL EXPERIENCE

FaradayFuture May 2017 - Aug 2017
Algorithm Development Engineer intern, Advanced Driver Assistant System *Los Angeles, CA*

· Participated and developed multi-sensor(camera/Lidar/Radar/USS) based object detection algorithms.
· Built algorithm module testing framework for autonomous parking system.

Spirent Communications June 2016 - Aug 2016
Engineering intern *Frederick, MD*

· Tested PEVQ VQA algorithm for usage of chromatic software for video experience evaluation.
· Investigated VMAF video quality assessment algorithm implementation into chromatic software.

TECHNICAL SKILLS

Computer Languages	Python, JAVA, Javascript, C++, C#, Bash, MATLAB
Protocols & APIs	XML, JSON
Databases	MySQL, MongoDB
Tools	Git, Vim, Emacs, Pytorch, Tensorflow, React, WALA, Soot