EDUCATION

Delft University of TechnologyDelft, NetherlandsNorwegian University of Science and TechnologyGjovik, NorwayMSc in Applied Computer Science2016 - 2018Middle East Technical UniversityAnkara, TurkeyBSc in Electrical and Electronics Engineering2012 - 2016

RESEARCH INTERESTS

Computer Vision

Optimization and Machine Learning

Neuroscience

Publications

S. Bolkar, Soft Segmentation of Viral Labeled Neurons, MSc Thesis, KU Leuven (Neuro-electronics Flanders) and Norwegian University of Science and Technology, 2018

S. Bolkar, C. Wang, F. Cheikh, S. Yildirim *Deep Smoke Removal From Minimally Invasive Surgery Videos*, in Proceedings of the IEEE International Conference on Image Processing (ICIP), 2018

S. Bolkar & O. Ozcelik, Bio-Spectral Imaging, Research Report, 2015

Honors & Awards

| Neuro-electronics Research Flanders MSc Thesis Scholarship | Spring 2018 |
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| EU Mundus Master Joint Degree Full Scholarship | 2016 - 2018 |
| Best Research Poster Award in METU Undergraduate Research Fair | May 2015 |
| Erasmus Summer Internship Grant | Summer 2014 |
| Scholarship of METU Alumni Association | 2014 - 2016 |
| Scholarship of Prime Ministry of Turkey | 2010 - 2015 |
| Ranked at the top 0.5% in National University Entrance Examination | 2010 |

EXPERIENCE

Neuro-electronics Research Flanders, KU Leuven & IMEC

Leuven, Belgium

MSc Thesis Researcher

January - July 2018

Soft Segmentation of Viral Labeled Neurons. Retinal ganglion cells have complex structures and dendritic arborization is crucial for their identification. The project aims to separate and reconstruct occluded individual neurons from viral labelled confocal microscopy image stacks

Advisor: Karl Farrow

Gestalt-ReVision, KU Leuven

Leuven, Belgium

Visiting Scholar

July - August 2017

Image Memorability. The project seeks to understand memorability of images from perceptual grouping point of view by using deep neural networks

Advisor: Johan Wagemans

Mikro-Tasarm Electronics Inc.

Ankara, Turkey

 $IC\ Engineering\ Intern$

 $August - September\ 2015$

Digital Circuit Design. The project is mainly on developing FPGA prototypes of a digital oscilloscope and a tunable clock management circuit by using Verilog

KocSistem Inc. Ankara, Turkey

Computer Networking Intern

June - August 2015

Network Design. The project aims to design and simulate network architecture of a company with multiple branches on hardware and software

Technical University of Denmark

Neuroengineering Intern

Lyngby, Denmark June - September 2014

Neurorehabilitation. It is a summer research project that targets development of feature extraction algorithms from EEG signals to be used in a brain computer interface for rehabilitation of ADHD Advisor: Sadasivan Puthusserypady

Skills

Language: Turkish (Native), English (IELTS-7.5/9), Bokmal (Elem.)

Programming: Matlab, Python, C/C++, R, Verilog, Assembly-68HC11, LaTeX

Libraries: Caffe, Keras, OpenCV, LIBSVM/LIBLINEAR, Scipy, Scikit-Learn, EEGLAB

Computer Programs: Blender, AutoCAD, Cadence Virtuoso, Agilent VEE, Altera Quartus, Xilinx ISE, LTspice,

Office Suites, Adobe Photoshop and Illustrator