

EDUCATION

Norwegian University of Science and Technology <i>MSc in Applied Computer Science, Joint Degree with University of Lyon & University of Granada</i> <i>Specialization in Computer Vision</i>	Gjovik, Norway 2016 – 2018
Middle East Technical University <i>BSc in Electrical and Electronics Engineering</i>	Ankara, Turkey 2012 – 2016

RESEARCH INTERESTS

Machine Learning
 Computer Vision
 Numerical Optimization

PUBLICATIONS

- Real-time Desmoking of Laparoscopy Videos Using Deep Learning (Peer reviewed)**
 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.
- Segmentation and 3d Reconstruction of Confocal Microscopy Stacks**
 S. Bolkar, *Soft Segmentation of Viral Labeled Neurons*, MSc Thesis, KU Leuven (Neuro-electronics Flanders) and Norwegian University of Science and Technology, 2018.
- Biomedical Spectral Imaging Literature Review**
 S. Bolkar & O. Ozcelik, *Bio-Spectral Imaging*, Research Report, 2015

HONORS & AWARDS

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

EXPERIENCE

Delft University of Technology <i>PhD Researcher</i>	Delft, Netherlands September 2018 -
Point Cloud Registration. Goal of the project is to increase resolution of localization microscopy by registering under-labeled 2/3d point sets. I developed an EM based joint registration framework that resulted in better reconstruction than the state-of-the-art	
Neuro-electronics Research Flanders, KU Leuven & IMEC <i>MSc Thesis Researcher</i>	Leuven, Belgium 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 <i>Visiting Scholar</i>	Leuven, Belgium 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.*IC Engineering Intern*

Ankara, Turkey

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.*Computer Networking Intern*

Ankara, Turkey

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 (ele.)

Programming: Matlab (adv.), Python (adv.), C/C++ (int.), R (int.), Verilog (ele.), Assembly-68HC11, LaTeX

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

Computer Programs: Cadence Virtuoso, Agilent VEE, Altera Quartus, Xilinx ISE, LTspice, Office Suites, Adobe Photoshop and Illustrator

ACTIVITIES & HOBBIES

Columnist in the Morsk Magazine

Amateur Artist (Drawing)

Volunteer for children with leukemia, autism, Down syndrome and CP at the Lodos (2012-2016)

Professional Basketball Player (2008-2016)