

Education

- 09/2017-present **PhD candidate, Computer Science, EPFL**, Lausanne, Switzerland, CGPA: 5.42/6.0.
09/2015-08/2017 **MSc Computer Engineering, METU**, Ankara, Turkey, CGPA:4.0/4.0.
09/2012-06/2015 **BSc, Computer Engineering (double major), METU**, Ankara, Turkey, CGPA:3.79/4.0 .
09/2011-06/2015 **BSc, Mathematics, METU**, Ankara, Turkey, CGPA:3.82/4.0 (Ranking:1/64).

Experience

Research and teaching experience

- 09/2017-present **Doctoral Assistant, École Polytechnique Fédérale de Lausanne (EPFL)**, Lausanne, Switzerland.
 - Formulated a new geodesically convex formulation for Brascamp-Lieb constant (a computational problem in ToC without no known true polynomial time algorithm, with applications to machine learning and information theory)
 - Helped with the preparation of an expository article on geodesic convexity
 - Showed applicability of box-constrained Newton's method to computation of the maximum entropy distribution
 - Held exercise hours as a TA for *Theory of computation* and *Analysis III* courses

09/2015-08/2017 **Research Assistant, Middle East Technical University (METU)**, Ankara, Turkey.
 - Modeled and applied standard machine learning techniques (linear classifiers, KNN, SVM) and deep learning techniques to temporal fMRI measurements to predict cognitive states of the person
 - Analyzed a neural-network model that avoids matrix-vector multiplication, showed they are universal approximators and analyzed their trainability using SGD variants
 - Designed and administered take home exams and lab exams as a TA for *Algorithms*, *Computer organization*, *Intro. to OS*, *Intro. to embedded systems*, *Intro. to AI*, and *Fundamentals of image processing* courses

2011-2017 **Tutor, The Scientific and Technological Research Council of Turkey (TÜBİTAK)**, Turkey.
 - Held problem solving sessions and designed exercise questions for high school students to prepare them for National and International Mathematics Olympiads

Internship

- 06/2014-08/2014 **Software engineering intern, Computer vision lab, Hacettepe University**, Ankara, Turkey.
 - Collected images from Flickr and computed their tiny images, GIST descriptors and hidden layer representations on R-CNN with caffe
 - Implemented similar image retrieval system from dataset and compare effectiveness of different features
 - Analyzed effectiveness of different methods for pruning object detection
 - Technologies used: Bash, Matlab

06/2013-08/2013 **Software engineering intern, Kovan Research Lab, METU**, Ankara, Turkey.
 - Developed a prototype of what you see is what you get (WYSIWYG) \LaTeX web interface for internal use
 - The interface supported graphic upload, basic font manipulation, and graphical equation input interface
 - Technologies used: Python/Django, Javascript, HTML, CSS

Professional Services

- 2014 **Coordinator, European Girls' Mathematical Olympiad (EGMO)**, Antalya, Turkey.
 - Formulated alternative solutions to official solution
 - Designed marking scheme for individual solutions
 - Graded participants' solutions (written in their language of preference) according to marking schemes
 - Negotiated grades with the team leaders and their observers

2013 **Coordinator, Junior Balkan Mathematical Olympiad (JBMO)**, Antalya, Turkey.
2012 **Coordinator, 29th Balkan Mathematical Olympiad**, Antalya, Turkey.

Skills

- Programming *Advanced*:C, Python (Theano, Numpy, Scipy, Sklearn, Django, Pandas)
Familiar:C++(CUDA), Matlab, PIC assembly, Bash
Languages Turkish (Native speaker), English (TOEFL: 110)

Honors and Fellowships

- 2017-2018 EDIC Fellowship, EPFL, Switzerland
2015-2017 National scholarship for master students, TÜBİTAK, Turkey.
2011-2015 Outstanding Success Scholarship, Türk Eğitim Vakfı (TEV), Turkey.
2011-2015 National scholarship for undergraduate students, TÜBİTAK, Turkey.
2010 Bronze medalist, International Mathematical Olympiad (IMO), Kazakhstan.