

Efe Karabeyli



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Area of interest:

Signal processing, machine learning and related applications

Education:

2014 - 2016 (Expected): **École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland**

M.Sc in Electrical Engineering with Information Technologies orientation

- EEG signal processing for emotion recognition during color viewing (in process)
- Non-smooth composite convex optimization for image denoising, image in-painting and compressive imaging problems
- Smooth Convex Optimization to solve Page Rank problem and binary logistic regression
- Implementation and analysis of image dithering, edge detection and 3D image reconstruction methods
- Analysis of PCA, K-means, GMM and SVM for clustering, classification and regression

2009 - 2014 June: **Bilkent University, Ankara, Turkey**

B.Sc. in Electrical and Electronics Engineering

Math/Science/Engineering Courses GPA: 3.96/4.00

- Spoken Digit Recognition system on MatLab and FPGA platform
- Analysis and presentation of the MR imaging method 'Propeller'
- Analysis and MatLab simulations of modulation, synchronization, equalization, OFDM, fading channels and diversity techniques in digital communications
- Financial data forecasting using signal processing and neural networks
- Pattern recognition and function approximation using neural networks
- Design and implementation of a heater using 8051 microcontroller, Assembly language, sensor, ADC, LCD and analog components
- Design and implementation of a frequency counter using BASYS2 FPGA Board and VHDL
- TRC-10 transceiver implementation using analog components
- Design and implementation of a calendar with GUI using Java

2012-2013: Telecom SudParis, Evry, France

Exchange program: Computer and Communication Networks

GPA: 14.66/20

- Presentation of a paper on Flashback: a novel wireless control technique
- Design and implementation of a generic n-puzzle solver using fitness functions and search algorithms

2005-2009: Ankara Ataturk Anatolian High School, Ankara, Turkey

Math/Science Track

- Ranked 576th in National University Entrance Exam among 1,5 million participants

Professional Experiences

June-September 2012 : Fraunhofer Institute, Dresden, Germany

- Optimization of a 3D IC using Synopsys ICC and Synopsys DC: analyzing the effect of the place of the memory block and chip dimensions on timing

August-September 2011: UMRAM(National MR Research Center), Ankara, Turkey

- Processing of MR images using MatLab to correct intensity inhomogeneity: detection of the 3D location of the internal coil in a series of MR images and correction of the intensity inhomogeneity using Biot-Savart law

Technical Skills

MatLab (Very good)

Java (Very good)

Assembly (Very good)

C & C++ (Good)

VHDL (Good)

Unix Command Language (Good)

Verilog (Basic)

Tool Command Language (Basic)

Spice (Basic)

Synopsys ICC and DC (Basic)

Scholarship & Grants

Bilkent University Full Scholarship (2009-2014)

ERASMUS Grant (2012-2013)

Language Skills

Turkish (Native)

English (Advanced)

French (Intermediate)

Other Activities

Volunteer working camp in Almeria, Spain (July 2010): Organization of a traditional music festival

Squash (4 years)

Skiing (5 years)

Cinema