



Mustafa Oztoprak

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EDUCATION

Dekalb, IL **Northern Illinois University** **Spring 2020-Current**

- **Major:** M.S.E. in Electrical Engineering GPA: 3.35
Coursework: Digital Speech Processing, Adaptive Signal Processing, Digital and Analog Communication Systems, Random Signal Processing, Artificial Intelligence, Digital Filter Design, Advance Microwave Circuit and Devices

Adana, Turkey **Cukurova University** **Fall 2013-May 2017**

- **Major:** B.S.E in Electrical Engineering GPA: 2.9
Coursework: Computer Network, Algorithms, Embedded Systems, IoT, Circuits, Logic Design, VLSI Design, Signal Processing

EMPLOYEMENT

Teaching/Research Assistant **Northern Illinois University** **Fall 2020-Current**

- Courses: Signals and Systems, Introduction to Computer Engineering, Communications Systems
- Started to work as a RA in Fall 2021; currently working with Dr. Lichuan Liu on speech and language processing.
- Projects: Active Noise Control(ANC), Children speech recognition (Create Center NIU)

Electric Project Engineer **EnerjiSA** **Sep 2017-May 2019**

- Improving the design, performance, and efficiency of the existing electrical network
- Using computer-assisted engineering and design software: schematic entry (OrCad, Eagle, etc.) and PCB layout (PADS/Mentor Graphics, Eagle, etc.) circuit analysis software (such as PSpice), including design and layout techniques to assure EMC performance of PCBs and products
- Reading electrical design specifications, technical drawings, and technical regulations.

Network Engineer, Intern **Turkcell** **Aug 2017-September 2017**

- Implemented and designed communication protocols such as UART, SPI and implemented those protocols using FPGA by VHDL.
- Designing TCP/IP Protocol with Raspberry Pi 3
- Attending meetings, writing reports, and giving presentations to managers and clients

TECHNICAL EXPERIENCE

Projects

- **Personal Website:** www.oztoprakmustafa.com (for additional information and projects)
- **Sound Classification:** A method is to launch several objects multiple times and try to identify the object only by sound and try to estimate distance or size by rebounding sounds.
Utilized: Python, Colab, Keras, CRNN, PCM, Cloud Storage
- **Speech Feature Extraction:** In this project, LPC, LPCC, MFCC < BFCC feature extraction techniques for recognition of female and male voices have been studied and corresponding recognition rates are compared.
Utilized: Matlab, OpenCV, Digital Signal Processing, Audio Processing
- **Optical Character Recognition:** Digitizing of printed or handwritten texts so that they can be electronically edited, searched, stored, more compactly displayed online, and used in machines.
Utilized: Deep learning, Image Recognition, Text Recognition, Matlab, C, C++
- **Active Noise Cancellation:** The project aims to demonstrate various ANC and their applications
Utilized: LMS, DSP, FxLMS, FuLMS
- **UART with VHDL:** Understanding the basic concepts of UART communication protocol and testing it using FPGA.
Utilized: FPGA, VHDL, UART, SPI, Circuit Design

SKILLS

Software: (*proficient*): Matlab, Python, C#, Pspice, R, (*familiar*): C++, SQL, HTML/CSS,

Hardware: FPGA, Arduino, Raspberry Pi, BeagleBone