

OĞUZHAN BAŞER

oguzhan.baser@boun.edu.tr • +90 5305764999 • oguzhan-baser.github.io

EDUCATION

Boğaziçi University

Bachelor of Science in Electrical & Electronics Engineering. GPA: 3.73/4.00

2017 - 2022

Istanbul, Turkey

HONORS AWARDS

- Ranked **40th** among 2.2 million students taking the Turkish university entrance exam.
- Awarded with Merit Scholarship of Turkish Presidency.

PUBLICATIONS

- Baser, O., Yavuz, M., Ugurlu, K., Onat F., and Demirel, B. “**Automatic Detection of the Spike-and-Wave Discharges in Absence Epilepsy for Humans and Rats using Deep Learning**”, *Biomedical Signal Processing and Control (Under Review)*
- Ararat, K., Altan, O., Serbest, S., Baser, O., Dumanli, S. (2020, March). **A Biodegradable Implant Antenna Detecting Post-Surgical Infection**. In *2020 14th European Conference on Antennas and Propagation (EuCAP)* (pp. 1-4). IEEE.

RESEARCH EXPERIENCE

Bogazici University, BUSIM: Center for Signal and Image Processing

Privacy Preserving Machine Learning for Speech Recognition Systems

Supervisor: Prof. Murat Saraclar

Oct 2021 - Present

Istanbul, Turkey

University of California Irvine, Embedded & Cyber-Physical Systems Laboratory

Machine Learning in Embedded & Cyber-Physical Systems

Supervisor: Berken Demirel & Prof. Mohammad Abdullah Al-Faruque

Mar - Sep 2021

Irvine, California, USA

Bogazici University Antenna Research and Propagation Laboratory

AkIm/SImpliFy-B: Smart Orthopaedic Hip Implant Fighting Antimicrobial Resistant Bacteria

Supervisor: Prof. Sema Dumanli Partner: Kivanc Ararat

Jun 2019 - Feb 2020

Istanbul, Turkey

Bogazici University Antenna Research and Propagation Laboratory

FRagRAnt: Frequency and Radiation Pattern Reconfigurable Antennas

Supervisor: Prof. Sema Dumanli Partner: Z. Pelin Yildirim

Feb - Sep 2019

Istanbul, Turkey

WORK EXPERIENCE

Decentralized Computing R&D Engineer (STAR) at SESTEK

Tasks: Cloud/Fog/Edge Computing, Decentralized Artificial Intelligence Systems

Privacy Aware Machine Learning

Jan 2022 - Present

Istanbul, Turkey

2mm Machine Learning R&D Engineer at SESTEK

Tasks: audio signal processing, speech recognition system design and optimization by utilizing supervised learning models such as Wave-Net, Squeeze-Net, Alex-Net, applying latest research findings to industry, embedded algorithm optimization

Jul - Sep 2020

Istanbul, Turkey

PROJECTS

Electric Guitar Amplifier Software

Implementing popular amp sound effects on MATLAB to provide easy to carry and cheap amplifier for guitarists.

Oct 2021 - Present

Music Genre Prediction/Classification Software

An application utilizing linear pattern recognition models for music genre classification.

Oct 2021 - Dec 2021

Realization and Evaluation of Communication Systems on Arduino Board

Communication systems with DSB-AM, FM, DTMF, BPSK, 4-PAM, 8-PSK, and 16-QAM were set up. System performances were evaluated against AWGN with different SNRs.

Sep - Dec 2021

Permittivity Detector Design

Apr - Jun 2019

A MATLAB program was coded to get permittivity values of biological phantoms by iterating algorithm using air/water permittivity and ambient temperature. A probe was made for the vector network analyzer to measure permittivity of liquids.

VOLUNTEER EXPERIENCE & LEADERSHIP ACTIVITIES

- | | |
|---|---------------------|
| • The Research Center on Asylum and Migration
<i>Mathematics Teacher</i> | Sep 2021 - Present |
| • Electrical and Electronics Engineering Department, Bogazici University
<i>Probability Course, Teaching Assistant</i> | Sep 2021 - Jan 2022 |
| • Electrical and Electronics Student Representative Board, Bogazici University
<i>Volunteer Ambassador</i> | Feb 2020 - Present |
| • Electrical and Electronics Student Representative Board, Bogazici University
<i>Student Mentor</i> | Sep 2019 - Present |
| • Mithat Alam Film Center, Bogazici University
<i>Executive Board Member</i> | Oct 2018 - Present |
| • Work & Travel Experience, Cottonwood Cove at LasVegas, Nevada, USA
<i>J1 - Fuel Personnel</i> | Jun - Aug 2018 |
| • MECZUP (The Lunatic), Film, Team Tiryaki
<i>Director, Scriptwriter</i> | Feb - May 2018 |
| • Scouting and Guiding Federation of Turkey
<i>Scout</i> | Apr 2014 - May 2015 |
| • Karaçam Rock Band
<i>Lead Guitarist</i> | Feb - Dec 2014 |

SKILLS, ACTIVITIES INTERESTS

- | | |
|---|--|
| • <i>Skills:</i>
C++, Java, Matlab-Simulink, Python, Tensorflow
OpenCV(C++), Artificial Deep Neural Networks,
Machine Learning, Keras, OrCAD / PSpice, VHDL,
Linux, Arduino, LaTeX, Adobe Photoshop, Adobe
Premiere Pro, Adobe Lightroom, Adobe Illustrator. | • <i>Languages:</i>
Native in Turkish
Fluent in English (TOEFL iBT Score: 106/120)
Elementary in German |
| • <i>Interests:</i>
AI, Network Science, Network Security, Privacy,
Digital Signal Processing, Decentralized Computing,
Cryptography, Cybersecurity, Blockchain, Crypto-
art, Cognitive Science, Philosophy, Film Making,
Photography. | • <i>Other Extracurriculars:</i>
Fitness, Climbing, WWF, Inzva AI Community,
Hiking, Riding Motorcycle, Playing Guitar & Piano,
Art and Technology writer of “cizgisizdefter.org” |