

Oğuzhan Başer

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EDUCATION

Bogazici University

Istanbul, Turkey

Major in Electrical and Electronics Engineering (B.S.)

September 2017 – June 2022

GPA: 3.71/4.0

Selectivity: The university is frequently ranked as the top university in Turkey with an admission rate of 0.09%

Meram Science High School

Konya, Turkey

Diploma in Turkish

September 2013 – June 2017

GPA: 97.57/100

Selectivity: The high school is frequently ranked as one of the top high schools in Turkey with an admission rate of 0.33%

HONORS & AWARDS

Ranked **40th** among 2.2 million students taking the Turkish university entrance exams and awarded with Merit Scholarship. *Certificate of Merit* due to overachievement for 4 years high school period.

PUBLICATIONS

Baser, O., Yavuz, M., Ugurlu, K., and Demirel, B. "Automatic Detection of Spike-Wave Discharges in Human and Rat Absence Epilepsy Seizures from Scalp EEG Using Computationally Efficient Deep Learning", *Journal of Neural Engineering IOP Science (Under Review)*

Baser, O., and Demirel, B. "More Robust and Stronger Neural Networks for Cross-Subject Sleep-Stage Decoding and Motor Imagery Utilizing Signal Processing", *The NeurIPS 2021 BEETL Competition: Benchmarks for EEG Transfer Learning (Presubmission Check, Testing)*

Ararat, K., Altan, O., Serbest, S., Baser, O., and Dumanli, S. "A Biodegradable Implant Antenna Detecting Post-Surgical Infection.", In *2020 14th European Conference on Antennas and Propagation (EuCAP)*, pp. 1-4. IEEE, 2020

RESEARCH EXPERIENCE

Security in Embedded & Cyber-Physical Systems: Differential Privacy & Federated Learning

California, US

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

March 2021- Present

Supervisor: Prof. Mohammad Abdullah Al-Farouque

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

Istanbul, Turkey

Bogazici University Antenna Research and Propagation Laboratory

June 2019- February 2020

Supervisor: Dr. Sema Dumanli

FRagRant: Frequency and Radiation Pattern Reconfigurable Antennas

Istanbul, Turkey

Bogazici University Antenna Research and Propagation Laboratory

February - September 2019

Supervisor: Dr. Sema Dumanli

Partner: Z. Pelin Yildirim

PROJECTS

Designing Permittivity Detector, Boğaziçi University Antenna Research and Propagation Laboratory

Istanbul, Turkey

Supervisor: Dr. Sema Dumanli, Erdem Cil

Partner: Onur Tatar, Sanberk Serbest

April - June 2019

Coded a MATLAB program in order to get permittivity values of biological phantoms by iterating an algorithm using environment variables such as air permittivity, water permittivity, and temperature.

Made an appropriate probe to measure physical quantities such as permittivity of a liquid by means of VNA and coaxial cables.

WORK EXPERIENCE

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

California, US

Role: Research Assistant (Internship)

Present

Doing Research on Privacy Preserving Machine Learning Algorithms, Establishing Model Simulations and Optimization

Writing Python Library for Research Purposes in the Windows-Linux Interface, Developing a Database for Special Signal Processing Applications

SESTEK - AI Powered Conversational Solutions Company

Istanbul, Turkey

Role: Machine Learning / R&D Engineer (Internship)

July - September 2020

Applying Common Low-Level Methods for Audio Signal Processing, Implementing Popular High-Level Methods for Speech Recognition Tasks,

Model Design and Optimization for Supervised Learning Based Algorithms such as WaveNet, SqueezeNet, AlexNet

Applying Recent ML Research Findings into Industrial Practices, Multi-System Optimized Embedded Algorithm Design.

VOLUNTEER EXPERIENCE & LEADERSHIP ACTIVITIES

Electrical and Electronics Student Representative Board, Bogazici University	Student Mentor	<i>Present</i>
Electrical and Electronics Student Representative Board, Bogazici University	Volunteer Ambassador	<i>Present</i>
MECZUP (The Lunatic), Film, Team Tiryaki	Director, Scriptwriter	<i>February - May 2018</i>
Mithat Alam Film Center, Bogazici University	Executive Member	<i>Present</i>
Work and Travel Experience, Cottonwood Cove/ LasVegas - Nevada - USA	J1 Fuel Personnel	<i>June - August 2018</i>
Rock Band, Karaçam Rock (Band Name)	Lead Guitarist	<i>February - December 2014</i>
Scouting and Guiding Federation of Turkey	Scout	<i>April 2014 - May 2015</i>

SKILLS, ACTIVITIES & INTERESTS

Skills: Proficient in C, C++, Java, Matlab, Python, Artificial Deep Neural Networks, Tensorflow, Keras Machine Learning, OrCAD/PSpice, VHDL, Linux Adobe Photoshop, Adobe Lightroom, LaTeX, Adobe Premiere Pro, Adobe Illustrator, Arduino

Interests:

AI, Network Science, Network Security
Cryptography, Digital Signal Processing,
Cloud Computing, Cybersecurity, Philosophy,
Cognitive Science, Film Making, Photography.

Languages:

Native in Turkish,
Fluent in English,
Elementary in German

Other Extracurriculars:

Fitness, Climbing, WWF , Inzva AI Community
Hiking, Riding Motorcycle, Playing Guitar and Piano
Art and Technology writer of “cizgisizdefter.org”