Oğuzhan Başer

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EDUCATION

Bogazici University *İstanbul, 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 Scolarship.
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-Faruque

AkIm/SImpliFy-B: Smart Orthopaedic Hip Implant Fighting Antimicrobial Resistant Bacteria *İstanbul, Turkey*
Bogazici University Antenna Research and Propagation Laboratory *June 2019- February 2020*
Supervisor: Dr. Sema Dumanli

FRagRAnt: Frequency and Radiation Pattern Reconfigurable Antennas *İstanbul, 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 Propogation Labratory *İstanbul, Turkey*
Supervisor: Dr. Sema Dumanli, Erdem Cil   *Partners: 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 pemittivity, 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 *İstanbul, 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	Present
Electrical and Electronics Student Representative Board, Bogazici University	Volunteer Ambassador	Present
MECZUP (The Lunatic), Film, Team Tiryaki	Director, Scriptwriter	February - May 2018
Mithat Alam Film Center, Bogazici University	Executive Member	Present
Work and Travel Experience, Cottonwood Cove/ LasVegas - Nevada - USA	J1 Fuel Personnel	June - August 2018
Rock Band, Karaçam Rock (Band Name)	Lead Guitarist	February - December 2014
Scouting and Guiding Federation of Turkey	Scout	April 2014 - May 2015

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"