Deniz Erdogan

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Date of Birth: Dec 22, 1999

Linkedin
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EDUCATION

Technische Universität München **Oct 2023 - Present**
Graduate student in the Computational Science and Engineering Master's Program with a focus on computational mechanics and machine learning applications.

Koç University, Istanbul/Turkey **Sep 2018 - June 2023**
Graduate of Mechanical Engineering and Computer Engineering. High Honor Student with scholarship. Ranked first among the Mechanical Engineering department.
GPA: 3.91/4.00.

- **Mechanical Engineering Thesis:** Manufacturing and Design of a Fully Automated TRV Chair for BPP Vertigo Diagnosis and Treatment
- **Computer Engineering Thesis:** Human Computer Interaction: Application of a "Furhat" Social Robot to Moderate Multiplayer Games

WORK EXPERIENCE

Sono Motors, Munich/Germany **Mar 2024 - Present**
Part-Time Simulation and Data Modeling Engineer. Implemented a solar energy yield simulation suite from the ground up and increased the efficiency of the simulation pipeline more than 10x. Conducted extensive analysis on telematics data and implemented automated system health check mechanisms.

Ubicro Technology, Istanbul/Turkey **July 2022 - Jan 2023**
Part-Time Mechanical and Software Engineer working on an automated aeroponic agriculture system. Gained experience in IoT, AWS, C, Python and Django frameworks and embedded systems. Built the necessary hardware and software mechanisms. Helped finalizing the mechanical design of the product and the manufacturing pipeline for plastic injection.

General Electric AVIATION, Gebze/Turkey **Feb 2021 - Oct 2021**
Part-Time Working Student working on Finite Element Analysis software and automation. Tested and evaluated various FE softwares based on their performance and usabilities for internal use. Worked with C++, Python and Bash scripting. Worked with Scrum and Agile development methods.

SIEMENS, Advanta, Istanbul/Turkey **August 2020 - Feb 2021**
Part-Time Working Student in the SINUMERIK EDGE Project. Working on the development of the Software Development Kit (AppSDK) for the Edgeboxes. Helped create a Python API for the users and increased the efficiency of the deployment pipeline as well as testing the artifacts.

PUBLICATIONS

- Omer Subasi, Atacan Oral, Shams Torabnia, **Deniz Erdogan**, Mustafa Bilge Erdogan, Ismail Lazoglu, **"In Silico Analysis of Elastomer-Coated Cerclage for Reducing Sternal Cut-Through in High-Risk Patients"**, Journal of Biomechanical Engineering. DOI: doi.org/10.1115/1.4050912

RESEARCH EXPERIENCE

Research at MARC `https://marc.ku.edu.tr/` **Mar 2019 - Dec 2019**
Worked to improve a research idea on Sternal Closure Methods After Median Sternotomy. The research is based on developing a rigid but yet affordable sternal fixation device which does not depend on a perfectly symmetrical median sternotomy. In the project, the tasks include prototyping of breastbone, rigid design using Siemens NX,

mechanic tests onto breast bone, careful analyze of biocompatible materials, production and test phases.

TEACHING EXPERIENCE

- TA for Introduction to Computer Aided Design course in my university.
- TA for Introduction to Mechanical Engineering course in my university.
- TA for the Object-Oriented Programming Course in my university.
- Taught programming with MATLAB at Koc University Learning and Teaching Center.

SKILLS

- 1000+ hours of lab and research experience.
- Strong English skills in C2 level (Have a TOEFL score of 112.0/120).
- GRE Scores: Quantitative: 168/170, Verbal: 154/170.
- Python, C/C++, OpenMP, OpenMPI, Java, MATLAB, Unix Kernel, Scheme, Object-Oriented Programming, Docker, Latex, SQL, Siemens NX and Computer Aided Design, 3D Printing.
- Machine Learning, Deep Learning, Computer Vision and Medical Image Analysis.

AWARDS

- Highest ranking student award in Mechanical Engineering.
- Dean's Academic Excellence Award (x5)
- Best Senior Design Project Award in Mechanical Engineering.

COMMUNITY SERVICES

Worked at an orphanage as a full time volunteer for 8 weeks in Cairo, Egypt in summer of 2019. This was an AIESEC project mostly focusing on helping disabled people. We would teach the kids English and computer skills along with completing their daily exercises with them.