

## EDUCATION

<b>Hacettepe University</b>	<b>Ankara, Turkey</b>	<b>Sep 2021 – June 2024 (Expected)</b>
<ul style="list-style-type: none"><li>• <b>M.Sc. in Computer Science with Thesis (English), Thesis Stage, CGPA: 3.64/4.00</b></li><li>• <b>Thesis Title:</b> Evaluating Zero-Shot Learning Capabilities of Video-Language Pretraining Models</li><li>• <b>Coursework:</b> <i>Deep Learning, Neural Networks, Pattern Classification, Machine Learning, Image Processing</i></li></ul>		
<b>Konya Gıda &amp; Tarım University</b>	<b>Konya, Turkey</b>	<b>Sep 2016 – June 2021</b>
<ul style="list-style-type: none"><li>• <b>B.S. in Computer Engineering, CGPA: 3.72/4.00 (2<sup>nd</sup> highest rank in the faculty)</b></li><li>• <b>Coursework:</b> <i>Intro to Machine Learning, Intro to Data Science, Artificial Intelligence</i></li></ul>		

## EMPLOYMENT

<b>Software Engineer</b>	<b>ASELSAN, Turkey</b>	<b>Nov 2021 – Present</b>
<ul style="list-style-type: none"><li>• <b>Developed</b> and <b>maintained</b> event-driven fire control systems running on <i>VxWorks RTOS and CentOS</i> in various national defense systems.</li><li>• <b>Handled</b> the communication between environment units using <i>UDP, TCP, RS422, Can Bus, DDS</i> communication protocols.</li><li>• <b>Used</b> <i>C++, IBM Rational Rhapsody, Visual Studio, and Eclipse</i> for software development and testing.</li></ul>		
<b>Researcher</b>	<b>TUBİTAK SAGE, Turkey</b>	<b>Feb 2021 – July 2021</b>
<ul style="list-style-type: none"><li>• <b>Built</b> a <i>C# multi-threading form application</i> that visualizes the intended <i>missile data</i> on a graph using <i>N-tier Architecture, Reflection</i> and <i>PlotLab</i> libraries provided by Microsoft and MitovLab respectively.</li><li>• <b>Developed</b> an <i>indexer</i> project which takes a root path, and intended file types as inputs, and then show all the files that are in the requested format, and under that root path, in an <i>HTML document</i> using a tree view.</li></ul>		
<b>Machine Learning Engineer Intern</b>	<b>Morten Inc, Turkey</b>	<b>June 2020 - Sep 2020</b>
<ul style="list-style-type: none"><li>• <b>Built</b> a Knowledge Graph that represents all authors and the ones who cite these authors according to academic papers which are stored in a <i>MongoDB</i> database by the user via our script, written in <i>Python</i>.</li><li>• <b>Developed</b> a machine learning model that <b>detects</b> the performed and future tasks in an academic paper and clusters the papers using <i>natural language processing</i>.</li><li>• <b>Worked on</b> a script that writes short reports in terms of what have done about a user-defined topic utilizing the previous machine learning model and <i>GPT-2</i>.</li></ul>		
<b>Erasmus+ Youth Exchange Participant</b>	<b>Perugia, Italy</b>	<b>Oct. 2019</b>
<ul style="list-style-type: none"><li>• <b>Participated</b> <i>actively</i> in a youth Exchange Project called "Interstellar Inclusion" whose objectives are to <b>develop</b> tools and good practices to facilitate the understanding of the <i>differences</i> and to <b>fight</b> racism and xenophobia through peer-to-peer experiences.</li><li>• <b>Performed</b> a theatre show with group of 6 people from different countries <b>to take attention</b> for a problem about <i>going to the school in the different world</i>.</li><li>• <b>Acted</b> and <b>edited</b> a short movie regarding Freedom and <b>received</b> 'Best Movie' award out of 5 movies for performance.</li><li>• <b>Given</b> a presentation related to migration in Turkey to 30+ youngsters from 6 <i>different countries and backgrounds</i>.</li></ul>		
<b>Embedded Software Eng. Intern</b>	<b>HAVELSAN EHSIM, Turkey</b>	<b>June 2019 – Sep. 2019</b>
<ul style="list-style-type: none"><li>• <b>Created</b> a <i>Memory Map</i> in <i>MIL-STD-1553</i> communication protocol using <i>C</i> and <i>VHDL</i> for project EHSUY (Electronic Warfare Suite Controller) developed for F-16 air-crafts.</li><li>• <b>Implemented</b> a <i>finite state machine</i> that converts digital signal to analog signal using <i>MYD-C7Z015 Development Board</i> and <i>LTC-2601</i> standards.</li></ul>		
<b>Laboratory Assistant Intern</b>	<b>Michigan State University, USA</b>	<b>Aug. 2018 – Sep. 2018</b>
<ul style="list-style-type: none"><li>• <b>Assessed</b> the result of the test by using <i>Bayes Theorem</i> and <i>Microsoft Excel</i> Tools and shared inferences with the companies.</li><li>• <b>Analyzed</b> the effect of sleeping time on people's eating habits by visualizing the data using <i>matplotlib</i> and <i>Seaborn</i> libraries in <i>Python 3</i>.</li></ul>		
<b>Erasmus+ Youth Exchange Participant</b>	<b>Tallinn, Estonia</b>	<b>May. 2018</b>
<ul style="list-style-type: none"><li>• <b>Participated</b> in a youth Exchange Project called "Sail Entrepreneurship" whose participants are from Italy, Lithuanian, Romania, UK, Estonia, Bulgaria in Tallinn, Estonia.</li></ul>		

- **Brainstormed** and **designed** business ideas in terms of social entrepreneurship using **Business Canvas Model**.
- **Overcame** cultural and language barriers with **35+ people** by remaining open and encouraging.

## PUBLICATIONS

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1. M. Doğan, Ö. Metin, E. Tek, S. Yumuşak and K. Öztoprak, "Speculator and Influencer Evaluation in Stock Market by Using Social Media," 2020 IEEE International Conference on Big Data (Big Data), Atlanta, GA, USA, 2020, pp. 4559-4566, doi: 10.1109/BigData50022.2020.9378170.
2. M. Dogan, K. Oztoprak, and M. R. Tolun, "Teaching Computer Architecture by Designing and Simulating Processors from Their Bits and Bytes," PeerJ Computer Science. **(In Major Revision Process)**

## LANGUAGES AND TECHNOLOGIES

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- C/C++ • Python • Tensorflow • Git • DDS&Common Communication Protocols • MongoDB • •  $\pi$ X • C# • Java
- Visual Studio • Microsoft Office • Eclipse • IBM Rational Rhapsody • Eclipse

## TECHNICAL EXPERIENCE

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### Academic Projects

- **Morse Decoder:** **Designed** a VHDL project which converts the user input signal to the appropriate Morse code using *ISE* Development environment. **Able to** decode signal and display decoded character on the LCD Screen of the FPGA board, delete last decoded character, passing to next line on the LCD Screen.
- **16-bit RISC based Processor:** **Designed** and **created** own instruction format and data-path based on Harvard architecture to support 18 necessary instructions comprising a memory and register operations. **Developed** a desktop simulator using *Python and PyQt* which enables users to execute their programs using our Assembly instructions and visualize the current memory and register values. **Constituted** a *Verilog* project to **verify** our design using *ISE* development environment.
- **Right to Information:** **Developed** a system for public institutions that receive people's requests for the Right to Information Law using *Java* and *MySQL for the database*. **Handled** both applicant and authority sides by taking, storing, replying, and forwarding requests.
- **Speculator Finder:** Aimed to **recognize speculators and influencers** in NASDAQ Stock Exchange Market using user tweets about companies. **Collected** almost *3.4 M distinct tweets* and their information from *14k distinct users* and their information about companies using *Selenium* library and stored them in an *SQLite Database*. **Vectorized** and **clustered** all tweets using *tfidf vectorizer* and machine learning algorithms, mainly *SVM* but other machine learning algorithms such as *KNN*, *random forest*, etc in Python.

## ADDITIONAL EXPERIENCE AND AWARDS

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- **TOEFL (92/120)**, ETS Mar 2023
- **KFAU Robotics Club**, Member of Board Jan 2019 - Sep 2021
- **IEEE KFAU Student Branch**, Founding President Jan 2018 - Oct 2019
- **International Youth Camp in Antalya, Turkey** Participant Aug 2017
- **Machine Learning**, Stanford Online
- **Convolutional Neural Networks**, DeepLearning.AI
- **Neural Networks and Deep Learning**, DeepLearning.AI