

## EDUCATION

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- **Boğaziçi University** İstanbul, Turkey  
*Bachelor of Engineering in Electrical and Electronics; GPA: 3.63* *Sept. 2014 – Jun. 2019*
- **Konya Meram Science High School** Konya, Turkey  
*Stem Student; GPA: 3.80 (95.0/100.0)* *Sept. 2010 – Jun. 2014*

## EXPERIENCE

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- **Synnada** Ankara, Turkey  
*Machine Learning | Algorithms Engineer* *May 2022 - Today*
  - **R& D Engineer:** Working on building streaming query execution engine to run sql queries on unbounded data
- **Aselsan** Ankara, Turkey  
*Software Design Engineer* *Apr 2019 - May 2022*
  - **R& D Engineer:** Developed algorithms (in C++) and deep learning models as part of military threat classification, observance product that works in real-time using Distributed Acoustic Sensing technology to monitor locations along standard fiber optic cables.
  - **Selective Group Acknowledgement:** Implemented a communication protocol robust to losses to send large data through small bandwidth in noisy environments.
- **Aselsan** Ankara, Turkey  
*Software Internship* *July 2018 - Sept 2018*
  - **State of Charge Estimation:** Written state of charge estimation algorithm in MATLAB using extended Kalman Filter algorithm as part of the battery management systems for wind turbines.
- **Tübitak Space Technologies Research Institute** Ankara, Turkey  
*Software Internship* *June 2018 - July 2018*
  - **Audio Source Separation:** Examined the performance of an audio source separation algorithm, written a library to manipulate audio files in Python, and incorporated that library with the already written audio source separation algorithm
- **Boğaziçi University** İstanbul, Turkey  
*Teaching Assistant* *Feb 2017 - June 2017*
  - **Introduction to Digital Systems:** Assisted the other assistants of the class, at the laboratories
- **Tübitak Bilgem Advanced Technologies Research Institute** Ankara, Turkey  
*Software Internship* *July 2016 - Aug 2016*
  - **KLT Tracker:** It is an algorithm to track interest points in a video, 32 bit version of it for infrared videos was written during the internship.
- **Fatih Sultan Mehmet High School** İstanbul, Turkey  
*Mathematics Teacher* *Feb 2015 - June 2015*
  - **University Preparation:** Mathematics classes are given to the Foreign students who are preparing for the Turkish University Entrance Exam.

## PUBLICATIONS

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- "Vehicle Tracking in Land Roads and Railways Using DAS Systems", Jan 2021
- "Fiber Optic Cable Termination and Signal Loss Detection in DAS Systems", May 2022

## PROJECTS

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- **Simple Deep Learning Library:** A library written in C++ for training simple neural network architectures
- **Audio Fingerprint:** A program to match an unknown song with the songs in database (like Shazam).
- **Taboo Game:** Taboo game in 2 languages using Python (Turkish and English)
- **Retail Product Features:** Feature visualization of the various retail products are done using convolutional neural networks in tensorflow

## PROGRAMMING SKILLS

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- **Languages:** RUST, C++, Python, MATLAB, C, SQL
- **Technologies:** Pytorch, LibTorch, Tensorflow, Keras, ONNX Runtime, Git, OpenCV, Apache Flink

## LANGUAGES

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- **Turkish:** Mother Tongue **English:** Advanced **French:** Beginner

## EXTRACURRICULAR

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- **Hiking:** Member of the Hiking Istanbul Group
- **Table Tennis:** One of my long time passions

## ANNEXES

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- **Github:** <https://github.com/akurmustafa/>
- **Linkedin:** <https://www.linkedin.com/in/akurmustafa/>
- **Github (for work):** <https://github.com/mustafasrepo/>