Mustafa Akur

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EDUCATION

- **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

- **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. I mainly work on apache datafusion code base. My work on apache datafusion is recognized by the community, as an indication I have received Arrow committer status.

- **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

- "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

- **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

- **Languages**: RUST, C++, Python, MATLAB, C, SQL

- **Technologies**: Pytorch, LibTorch, Tensorflow, Keras, ONNX Runtime, Git, OpenCV, Apache Flink

Languages

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

Extracurricular

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

Annexes

- **Github:** https://github.com/akurmustafa/   **Linkedin:** https://www.linkedin.com/in/akurmustafa/

- **Github (for work):** https://github.com/mustafasrepo/