

# FATİH BAŞATEMUR

## Computer Engineer

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github/fbasatemur

in linkedin

Tekirdağ, Turkey



## PROFESSIONAL EXPERIENCES

### Çevik Çözüm

June 2020 – July 2020

İstanbul

Web application with map feature for workplaces. Angular for frontend, Java and JS for backend.

### Karadeniz Technical University

July 2020 – September 2020

Trabzon

"Single-Shot Autofocus Microscopy Using Deep Learning" project was realized with Prof. Dr. Murat Ekinci. Deep learning was used to observe clearer images with a microscope.

## EDUCATION

### Computer Engineering

#### Karadeniz Technical University

2018 - Ongoing

Trabzon, Turkey

GPA: 3.43/4.0

#### Selçuk University

2017 - 2018

Konya, Turkey

GPA: 3.83/4.0

#### Çorlu Mimar Sinan Anatolian High School

2012 - 2016

Tekirdağ, Turkey

## AWARDS AND LEADERSHIP

### 2247-C TUBITAK STAR Licence Project

01-December-2020

Turkey

- I took part in the "Computer Vision and Machine Learning based automated Light Microscopy scanning and analysis for the differential diagnosis of Malignant Neoplasia and Reactive Mesothelial Hyperplasia with Computer Aided Cytopathology" project supported by TUBITAK within the scope of "2247-C Intern Researcher Scholarship Program".

### 2247-C TUBITAK STAR Licence Student

09-January-2020

Turkey

- I was ranked among the first 1000 of 12.000 TUBITAK scholars and was selected as a "STAR Undergraduate Student" by TUBITAK.

## PROJECTS

### FFT-Variance Artificial Neural Network Creating with CUDA

Artificial neural network that can measure clarity from tissue images produced using light microscope was created. The artificial neural network stages in the project are parallel with CUDA and the other stages are coded using C / C ++.

## TECHNICAL SKILLS

CUDA Runtime API (C/C++)

Keras & Tensorflow

OpenCV (C++/Python)

Darknet/YOLO V3

Computer Vision

Machine Learning / Numpy, Scikit etc.

Deep Learning / ANN

Matlab / Image Processing

Socket API

MySQL & MsSQL

PyQT5

C# Form & DevExpress

C++ CLI

Linux(PopOS) / Bash Script

Latex

## PROGRAMMING

C/C++

C#

PYTHON

JAVA

DART/FLUTTER

HTML/CSS

PHP



## REFERENCE



Assoc. Prof. Eren Erdal Aksoy

@ eren.aksoy@hh.se

Halmstad University & Computer Vision, Autonomous Vehicles, Sweden

aksoyeren.github.io

## LANGUAGES

- English: B2
- Turkish: Native

## Artificial Neural Network Design using CUDA

It offers parallel testing of artificial neural network models created using Keras in C++ environment with CUDA. Dense, BatchNormalization, ReLU, Sigmoid etc. layers are programmed with CUDA.

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## Non-Subsampled Shearlet Transform (NSST)

NSST is the newest image processing algorithm recommended for the restoration of any image. NSST is proposed by Gitta Kutyniok, Wang-Q Lim, and Xiaosheng Zhuang. It is used as a process step to obtain a clear image from blurry images in a data set. It was programmed using C++ language.

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## SRCNN Image Restoration

Single image super resolution example has been tried to be created with Python/Keras and PyQt5. SRCNN artificial neural network model was used for image clarification.

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## Multilayer & Multicategory Learning Rules ANN Design

A multi-layer and multi-neuron artificial neural network was designed. Classification of linear or nonlinear 2 dimensional samples was carried out. The project was implemented with Visual C++ CLI.

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## Medical Mask Detection

Covid-19 medical mask detection for public places

- Artificial neural network created and trained using Python and Keras.
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## Classification of Skin Cancer with CNN

Classification of 7 different cancer groups using Skin Cancer MNIST HAM 10000 dataset

- Artificial neural network created and trained using Python and Keras.
  - Visualized with PyQt5
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## Circle and Line Detection With Hough Transform

Hough Space algorithm is used to determine the line / circle on the image by performing the edge detection in the Canny Edge Detection process on the image.

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## Object Train Test Classification

It is the determination of each object using the K-Means algorithm on the image and the object detection as a result of the feature extraction of each object.

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## ChatONE Chatapp

A messaging application was created in the PyQt5 interface with socket programming and multithreading.

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## Commercial Automation

Commercial automation application has been implemented. C# / DevExpress Framework and MsSQL used while creating.

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## Site of University Graduates

A website with PHP, MySQL and JS has been designed for university graduates.

# EXTRA PROJECTS

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- CUDA Matrix Multiplication/2D-3D Convolution ( Parallel programming with CUDA )
- Real Time Object Tracking ( C++ / OpenCV | Meanshift algorithm used )
- Youtube Downloader ( Python / PyQt5 and Pytube Framework )
- Eight Queens Puzzle ( Solution of 8 queen problems with Heuristic Repair Method )
- Flappy Bat ( JAVA / Android game and libGDX Framework )