Bulent Siyah

Istanbul, Turkey

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<u>Software Engineer (Computer Vision | Deep Learning)</u>

I am working on Deep Learning and Computer Vision, especially on Unmanned Aerial Vehicles (UAV).

The projects I have been working on; Emergency Landing Site Identification System, Sense and Avoid System, Guidance for Autonomous Landing, Vision-Based Navigation of UAV in GPS Denied Conditions My skills; Image classification, Image Segmentation, Object Detection, Object Recognition, Object Tracking, Pose Estimation, Pattern Recognition, Autonomous Vehicles.

You can access my work on my website (<u>www.bulentsiyah.com</u>). You can review the source codes of all my work from my Kaggle and Github profiles

Experience

Computer Vision Engineer – SoftTech Software Tech. Inc - Aircar Corp. , *Istanbul/Turkey*

10/2019 - Present

In collaboration with SoftTech Software Technologies (https://softtech.com.tr/) and Aircar Corp. (http://www.aircarcorp.com/), electric powered vertical takeoff and landing (eVTOL) aircraft is being developed.

The projects I am working on are Semantic segmentation (Aerial images) during the flight of the vehicle to find suitable areas where the vehicle can land. To make volumetric control of the vehicle to these areas. Other projects, such as positioning on the image that will be activated at the time of GPS loss and Passenger mood analysis.

Deep Learning Research Engineer – SoftTech Software Tech. Inc., Istanbul/Turkey

10/2018 - 10/2019

I work as a "Deep Learning Engineer" at SoftTech Software Technologies. My work is in the field of medical image processing and video processing. I had a long research opportunity on using CNN most effectively in medical images. My last study in this area is to determine the age from the left-handed X-Ray image.

Software Engineer in Deep Learning – Geobilgi IT Technologies, Istanbul/Turkey

03/2017 - 07/2018

I had the chance to develop deep learning first project in this company. The project was about classifying traffic signs. Then we developed projects such as license plate recognition and finding faces in the picture.

Mobile Application Developer – Geobilgi IT Technologies, Istanbul/Turkey

06/2015 - 03/2017

I developed IOS and Android applications through the company's current technologies and developing boutique software.

Mobile Application Developer – Rota Internet Technology Services, Istanbul/Turkey

07/2012 - 06/2015

I worked as a "Mobile Application Developer" at Rota Internet Technology Services. As a vehicle tracking company, I developed applications in the field of Android Devices Tracking and Geographic Information Systems.

Education

Mustafa Kemal University, Turkey – Computer Engineering

2008 - 2012

I graduated from Mustafa Kemal University Computer Engineering Department in 2012 (3.06 / 4). I had been studied at Iskenderun Campus of Mustafa Kemal University. The Faculty of Engineering was connected to the newly established Iskenderun Technical University in 2015.

Skills

Deep Learning, Deep Neural Networks (DNN), Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Long Short-term Memory (LSTM), Image Classification, Object Detection, Image Segmentation, Object Recognition, Object Tracking, Pose Estimation, Pattern Recognition, Autonomous Vehicles

Machine Learning, Genetic Algorithms, Keras, TensorFlow, PyTorch, Python, Java, C#, Kaggle, Autonomous Vehicles, Robot Localization, Object-Oriented Programming (OOP), U-Net, YoloV3, Pose Estimation, Optical Flow, Siamese Network, Reinforcement Learning, Android Developer, IOS Developer, Linux,

<u>Projects</u>

Machine Learning Projects

- Deep Learning-Based Sense and Avoid System
- Vision-Based Navigation of UAV in GPS Denied Conditions
- Vision-Based Guidance for Autonomous Landing of UAV
- Deep Learning-Based UAV Emergency LandingSite Identification System
- Prediction Bone Age from X-Ray Image (Python)
- Plant Disease Using Siamese Network
- Name of Container and License Plate Recognition via Deep Neural Networks (Yolov3)
- Object Detection, Heat Map, Pose Estimation, Human Action Recognition
- Classification of Chest X-Ray Images (14 diseases, and one for "No findings")
- Classification of Skin Lesions using CNN
- Green Restricted Vehicle Routing Problem Optimization (Genetic Algorithm, C#)
- Book Container Placement Problem with Genetic Algorithm (Genetic Algorithm, C#)
- Maximum Weighted Clique Problem with Genetic Algorithm (MWCP) (C#)
- Double Sided Assembly Line Balancing with Genetic Algorithm (C #)
- Point-to-Point Path and Route Planning Using Genetic Algorithm (C#)
- A Data Mining Application on Breast Cancer Data with Oracle Data Miner

Mobile Projects

- Machine Learning Apps for Android (Android)
- Machine Learning Applications for IOS (IOS)
- Android Application Development Training Program (I created it myself Android)
- Traffic Directorate Field Operations Application (Android)
- Mobile Disaster Management (Android)
- Aircraft Tracking System (VFR Flying Aircraft) (Android)
- Mobile City Guide (Android And IOS)
- Motion Recognition Application with Gyroscope Sensor (Android)
- Pulse Control and Positioning Application (Alzheimer etc. for the elderly and in need of care) (Android)
- Ship Information System Remote Control Application (IOS)
- Promoter Supervision And Data Transfer Mobile Applications (Android And IOS)

Certifications

Machine Learning

- Kaggle Notebooks Master, Discussion & Dataset Expert
- Udacity Computer Vision Nanodegree
- deeplearning.ai Neural Networks and Deep Learning
- deeplearning.ai Convolutional Neural Networks
- deeplearning.ai Al for Medical Prognosis
- deeplearning.ai Al for Medical Diagnosis
- Elements of AI The University of Helsinki The University of Helsinki
- Deep Learning Computer Vision™ CNN, OpenCV, YOLO, SSD & GANs
- Deep Learning and Python: Deep Learning from A to Z
- Face and Object Recognition with Computer Vision | R-CNN, SSD, GANs
- Machine Learning with Python A-Z ™
- Applied Machine Learning For Healthcare
- Natural Language Processing A-Z ™: (NLP)
- Artificial Intelligence with Python: Reinforcement Learning A to Z

Mobile Machine Learning

- Fundamentals of Core ML: Machine Learning for IOS
- Mobile Machine Learning for Android: TensorFlow & Python

Other

- Portfolio Management and Consultancy
- Certified Drone Pilot to Fly for Commercial Use

Language

- Turkish (Native or Bilingual)
- English (Professional Working)