# OZMEN ERKIN KOKTEN

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## PROFILE

An Electrical-Electronics Engineering graduate and a Computer Science PhD student who is interested in Machine Learning and Data Science, seeking internships. Experienced in applying Machine Learning models and data processing.

## EDUCATION

**2022-2027 Oregon State University, Computer Science, PhD**

**Courses:** Convex Optimization; Estimation, Filtering and Detection, Linear Systems, Information Theory

**GPA:** 4.00/4.00

**2017-2022 Bilkent University, Electrical – Electronics Engineering, B.Sc., Ankara/Turkey**

**Courses:** Statistical Learning and Data Analytics, Introduction to Machine Learning, Neural Networks, Computer Networks, Statistical Foundations of Natural Language Processing, Algorithms and Programming I-II, Fundamental Structures of Computer Science, Introduction to Digital Circuit Design, Microprocessors, Circuit Theory, Electronic Circuit Design, Signals and Systems, Telecommunications I, Feedback Control Systems, Digital Signal Processing.

**CGPA:** 3.23/4.00

## PROJECTS

**Capstone Image Based Navigation**

The aim is to construct an image-based navigation system for UAVs using geo-referenced images, in partnership with two consultants from ArdicLabs Company. UAV's location, direction, and speed are determined using Computer Vision techniques when GPS is interrupted, and the Inertial Navigation System fails to make estimations.

**Spring-2022 Racial Bias Mitigating in BERT Base Uncased Language Model**

Natural Language Processing course project. Racial bias in contextual word embeddings is quantified using template based quantifying method. Racial bias is mitigated from the BERT base uncased language model using fine tuning method.

**Fall-2021 Image Captioning**

Neural Networks course project. CNN encoder-RNN decoder structure is used to generate captions for images. Inception V3 is used to generate features. GRU and LSTM models are tried for RNN decoder.

**Fall-2021 Animal Classifier**

Introduction to Machine Learning course project. Convolutional Neural Networks are used to classify the images of cats, dogs, and wild animals. Different architectures are considered to find the most appropriate model. Pre-trained StarGAN v2 is used to combine animal images.

**Spring-2021 Airline Passenger Satisfaction Predictor**

Statistical Learning and Data Analytics course project. Different Machine Learning models are implemented from scratch to see which one is more appropriate for airline passenger satisfaction data. K-Nearest Neighbors, Support Vector Machine, Decision Tree, and Random Forest algorithms are implemented for binary classification via Python.

## SKILLS & ABILITIES

- Machine Learning, Deep Learning, Object Oriented Programming, Python, Java, C, C++, VHDL, Assembly, MATLAB, OpenCV, TensorFlow, LTSpice, CubeMX, Keil uVision, Qt, Git, Android Studio, Firebase, Reaper, Sound Design

## EXPERIENCE

- **Oregon State University, Graduate Research Assistant, 09/2022-Ongoing**
  - Working on Soil Water Content prediction for Smart Irrigation problem using LSTM and time series dataset.
- **Novit.AI, Part-Time Engineer, Ankara/Turkey, 02/2022-04/2022**
  - Worked on OAK-D-Lite camera to apply the SpatialAI functionality by applying object detection inference. Served an information website using AWS.
- **Arçelik Global, Internship, Istanbul/Turkey, 07/2021 – 09/2021**
  - A Convolutional Neural Network model, which can predict the fullness of the body of a refrigerator in terms of percentage, is trained using TensorFlow and Python for the project 'Refrigerator with Camera'.
- **Arçelik Global, Internship, Istanbul/Turkey, 08/2020 – 09/2020**
  - Programmed basic applications of embedded systems using the ARM based board NUCLEO-FR411RE to grasp the fundamentals of RTOS and bare metal programming using CubeMX and Keil uVision5.

## CERTIFICATIONS

- **Convolutional Neural Networks, deeplearning.ai, 08/2021**
  - https://www.coursera.org/account/accomplishments/certificate/55T743SF4LKD
- **Neural Networks and Deep Learning, deeplearning.ai, 08/2020**
  - https://www.coursera.org/account/accomplishments/certificate/9KUGHAG5NHVX
- **C Programming for Embedded Applications, LinkedIn, 06/2020**
- **Machine Learning by Stanford University on Coursera, 2019**
  - https://www.coursera.org/account/accomplishments/verify/RACKLLD9TBPH

## LANGUAGES

- **Turkish** – Native, **English** – Working Proficiency, **German** – Beginner, **Japanese** – Beginner