A. Furkan Okuyucu

+90(506) 781 6781 okuyucu@sabanciuniv.edu /bubblecounter /furkan-okuyucu

EDUCATION

Sabancı University, Istanbul, Turkey — Expected Jun 2022
MSc. Data Science
***Research Areas**: Graph Neural Networks, Machine Learning, Deep Learning*

Sabancı University, Istanbul, Turkey — 2014-2019
BSc. Computer Sciences
GPA: 3.57

Atatürk High School of Sciences, Istanbul, Turkey — 2010-2014
Sabancı University, Full BSc. Scholarship, Full MSc. Scholarship
University Entrance Exam (OSYS), ranked 2000th among 2,000,000 candidates (2014)

EXPERIENCE

Graduate Teaching Assistant

Sabancı University — Sep. 2020 - Present

Course: Introduction to Computing (CS201)
Delivered weekly recitations and assisted students through the problems and homework to create better understanding of the concepts.

Undergraduate Researcher
Github Link

Ulak Haberlesme — Sep.2018 - June 2019

Implemented and comparatively analyzed the performances of load balancing algorithms on a Data Center Network (DCN) with leaf-spine network topology using Software Defined Network (SDN) Controller ONOS. Implemented ONOS applications using java. Presented the results at BalkanCom'19 Conference in Skopje.

Engineering Intern

TAI (Turkish Aerospace Industries) — Nov.2018- May 2019

Examined the working principles of Ad-Hoc Networks and implemented different scenarios for FANETs using the discrete network simulator tool omnetpp.

Software Engineering Intern
Github Link

i2i Systems — July 2018 – Sep.2018

Implemented the RESTful Web Services between the nodes of 5G Core Network by using the principles of Service Based Architecture. The web services built by using JAX-RS library.

PUBLICATIONS

Refereed Conference Papers & Presentations

Okuyucu, A. F., Karatas, C., Gürbüz, Ö, & Levi, A. (2019, June). Performance of Load Balancing Algorithms for SDN Controlled Data Center Networks with Leaf-Spine Topology. In Proceedings of Third International Balkan Conference on Communications and Networking (BalkanCom'19), Skopje the paper

Delivered a presentation about the paper at BalkanCom'19 Conference in Skopje

RELEVANT COURSEWORK

- Machine Learning, DeepNLP
- Parallel Architectures, Microprocessor Design
- Operating Systems, Database Systems
- Deep Learning Specialization (Coursera)

PROJECTS

Doodle Recognition *Advisor: Prof. Öznur Taştan* — Sep.2020 – Jan.2021

Github Link
Python, CNN, ML
TensorFlow, Keras
Transfer Learning

Prepared different ML pipelines to classify doodle images. Applied CNN, Transfer Learning (Resnet50), Ensemble Learning methods to train different models and compared their performances. Implemented mobile and web interfaces to get drawings from the user, and used trained model to label the input

Sequence Labeling in Scientific Texts *Advisor: Prof. Reyyan Yeniterzi* Sep 2020- Jan. 2021

Github Link

Implemented NLP pipelines, to extract quantities, measurements along with their measured entities from scientific texts. (SemEval 2021 Task 8)

Python, TensorFlow
biLSTM, Transformers

Deep Learning Specialization Projects (Coursera) July 2020 – Oct. 2020

Face Recognition using FaceNet, Art Generation with Neural Style Transfer
Trigger Word Detection

Python
TensorFlow

Machine Learning Course Projects Sep 2018- Jan. 2019

MNIST Digit Classification, Risk Prediction in German Credit Data

Python,Scikit-Learn

Online Store Database Implementation *Advisor: Prof. Yücel Saygın*

Implemented an online store database using MYSQL

MySQL

Course Registration Database and App Development

Github Link

Implemented an application for course registration system. In this app a student can login to app and then register the courses available in coming term. Implemented the database using SQLITE.

Java
Android
SQLite

Online Store Implementation using Agile Methodologies

Implemented an online store using SCRUM and agile methodologies to manage our project.

SCRUM, JIRA
HTML, JavaScript, Ajax

Processor Simulator *Advisor: Prof. Kubilay Atasu* Sep. 2020 – Jan. 2021

Github Link

Implemented dynamic scheduling of instructions using Tomasulo's algorithm with reorder buffer to understand the underlying concepts of computations performed on CPU.

Python

Operating System Simulation *Advisor: Yücel Saygın*

Github Link

Implemented a basic virtual computer system which simulates OS, CPU, Memory, I/O devices with features like multiprocessing, deadlock prevention using mutexes, ready queue and blocked queues for Console and File Input.

Java

Implementing Digital Thermometer with a Microprocessor

Implemented a digital thermometer using PIC24F Microcontroller, TMP 101 temperature sensor. Connection established using I2C protocol.

C, Assembly

Implementing Cryptocurrencies with Blockchains

Implemented a blockchain using elliptic curve digital signature algorithm

Python, Blockchain

COMPUTER SKILLS

Basic
PHP, JavaScript, HTML, C#, Assembly

Intermediate
Machine Learning, Deep Learning, CNN, RNN,SQL, MySQL, SQLite, SCRUM, C, JAX-RS, TensorFlow, Scikit-learn,

Advanced
Java, C++, Python

LANGUAGES

English (Advanced)
IELTS Score: Overall 8.0 (L:9.0 R:9.0 W:6.0 S:7.0) Valid till 2022
Turkish (Native)

VOLUNTEER WORK

Primary School Project 2014-2015

Helped children to improve their awareness on art, environment, and human rights

INTERESTS

Archery, Cycling, Sailing, Swimming and Tennis