Fatih Ilhan

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Education

Bilkent University
M.Sc., Electrical and Electronics Engineering, Sep. 2019 - Present
Fields: Machine Learning, Convex Optimization, Spatio-Temporal Forecasting
Expected Graduation Date: June 2021

Bilkent University
B.Sc., Electrical and Electronics Engineering, Feb. 2015 - June 2019
Fields: Signal Processing, Machine Learning, Computer Vision, Information Theory,
Telecommunications
CGPA: 3.81/4.00

Nagoya University
Exchange Program, Electrical and Electronics Engineering, Apr. 2018 - Aug. 2018
Fields: Autonomous Cars, Electronics in Automobiles, Intelligent Transportation
Systems

Ankara Science High School
High School Degree, Maths and Natural Sciences, Sep. 2010 - June 2014
CGPA: 95.26/100

Work Experience

Databoss Security & Analytics
Machine Learning Engineer, Nov. 2018 - present
- Building machine learning architectures for spatio-temporal prediction systems.
Intern Engineer, Jan. 2018 - March 2018
- Implemented models for face detection and panic detection in crowd scenes
through reproducing academic papers with C++ and Python.

Roketsan
Intern Engineer, June 2017 - July 2017
- Wrote a Labview program that enables communication with a GPS receiver and
displays/records the position, velocity, heading and time data.
- Evaluated the GPS receiver under different simulations.
- Worked on integration of GPS and INS using Extended Kalman Filter.

Research Experience

Bilkent University
Undergraduate Researcher, Aug. 2018 - June 2019
- Conducted research on context-free anomaly detection in surveillance videos.
- Worked on spatiotemporal prediction problems and point processes.
Supervisors: Asst. Prof. Dibeklioglu, Prof. Kozat

Awards and Honors	- TUBITAK Scholarship during M.S. studies - Comprehensive Scholarship at Bilkent University during B.Sc. Studies - JASSO Scholarship for Exchange Program at Nagoya University - Bilkent University High Honor Student during B.Sc. Studies - Ranked 191st in Nationwide University Entrance Exam (LYS) among $\sim$2 million students in Turkey, 2014.

Projects

- LocInCampus (2019):
Designed and implemented a 2D outdoor localization system completely independent of GPS, for industrial design project.

- Facial Emotion Recognition (2017):
Implemented three machine learning and active appearance modeling based architectures for emotion recognition from frontal face images.

- Levitating Light Bulb (2017):
Designed an LED light bulb powered with electromagnetic induction and levitated using electromagnetic suspension.

- Touchpad Controlled Audio Processing Unit (2017):
Designed an audio processing system that consists of active filters and an amplifier controlled by a touchpad.

- Pong Game with Gesture Control (2016):
Implemented Pong game on a 8x32 LED Matrix coded with assembly language on a 8051 micro controller.

- Pacman Game (2016):
Implemented a full version of the classical game Pacman, coded with VHDL.

- Pixelium (2015):
Implemented a multi-functional painting application for Android.

- Ion Craft (2013):
Designed and made an ion craft which levitates under high voltage between its poles.

Skills

-**Languages:** Turkish (Native), English (TOEFL iBT: 109), Japanese ($\sim$N4)
-**Programming:** Python, Matlab, SQL, C++, Java, Assembly, VHDL, GNURadio, Labview, Simulink
-**Tools:** Deep Learning Libraries (Tensorflow, PyTorch, Keras), Docker, OS (Windows, Linux), Agile (Jira, Gitflow), Latex, Cubase, Garageband

Social Activities

- Bilkent University Music Club Member (2014-2017)
- Bass Guitarist in "Freud Goes Technical" (2014-2017)
- Bilkent IEEE Student Branch Member (2014-2016)
- Bilkent University Open Software and Internet Technologies Club Member (2014-2015)
- Ankara Science High School Electronics Club Member (2012-2014)
- Ankara Science High School Physics Olympiads Team Member (2010-2012)

Hobbies

- Backpacking, overnight camping, being on the road, hoping to travel all over the world
- Playing bass guitar, discovering new music