

Enver Bashirov

SOFTWARE ENGINEER · MACHINE LEARNING ENGINEER

Padova, Italy

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Creating intelligent systems, solving real-world challenges and bringing innovation to life – With strong foundation in software engineering and AI

Work Experience

MINTS

Padova, Italy

EARLY STAGE RESEARCHER

Mar. 2020 - Mar. 2023

- Developed a distributed and multi-threaded edge computing server-client network using socket programming and TCP/IP on Python **[paper]**
- Developed a radar network with synchronization, data sharing and FoV calibration features
- Designed a Machine Learning model for human activity recognition and person tracking/identification on radars by using Tensorflow
- Implemented CNN, RNN (LSTM / GRU) and Autoencoder models for radar-based YOLOv3 for person tracking by using PyTorch **[code]**

Nokia Bell Labs

Espoo, Finland

PH.D. RESEARCHER · MACHINE LEARNING ENGINEER

May 2022 - Aug. 2022

- Developed decision tree based peak detection model for a wifi signals using scikit-learn
- Developed a preprocessing pipeline for received signals to be used by peak detector using pandas and numpy

IMDEA Networks

Madrid, Spain

PH.D. RESEARCHER · MACHINE LEARNING ENGINEER

Jan. 2021 - Jun. 2021

- Developed a Neural Network model for person identification and human activity recognition using TensorFlow **[paper]**
- Developed an algorithm for signal thresholding, noise removal and interpolation using Python and scikit-learn

Education

University of Padova (UNIPD)

Padova, Italy

PH.D. IN INFORMATION AND COMMUNICATION TECHNOLOGY

Oct. 2019 - Oct. 2023

- **Thesis:** ML-driven Environment Sensing with millimeter-Wave radars
- Granted 3-year full scholarship as a part of **MINTS** research group in MSCA ITN H2020 (Grant no: 861222)
- Managed **blog duties** of 15 PhD students (scheduling, reviewing and publishing) and supervised a MSc. student through their thesis period

Eastern Mediterranean University (EMU)

Famagusta, Cyprus

M.Sc. IN APPLIED MATHEMATICS AND COMPUTER SCIENCE

Sep. 2017 - Jul. 2019

- **Thesis:** Person-Dependant and Independent Facial Emotion Recognition on eINTERFACE, SAVEE and RML datasets using SVM and NN **[paper]**
- Awarded a Research Assistant Software Engineering position, developed internal features for university infrastructure with .NET, MySQL, NodeJS
- **Main Courses:** Distributed and Parallel Programming, Cryptography and Network Security, Artificial Intelligence, Decision Making

Bilkent University

Ankara, Turkey

B.S. IN COMPUTER ENGINEERING

Sep. 2012 - Jul. 2017

- **Graduation Project:** NetWord: A social network based on text-based games developed with Android Studio and Google Firebase **[code]**
- **Main Courses:** Digital Design, Computer Organization, Operating Systems, Artificial Intelligence, Image Analysis, Computer Graphics

Publications

- 2023 **RAPID: Retrofitting APs for Indoor human Detection and sensing**, IEEE Transactions on Mobile Computing
- 2022 **RadNet: a testbed for mmwave RADar NETWORKS**, ACM CoNEXT
- 2022 **A review of mmWave localization and device-free sensing technologies and applications**, IEEE CS&T
- 2021 **Video-based person-dependent and person-independent facial emotion recognition**, Springer SIVP
- 2020 **Deep Learning for Accurate Indoor Human Tracking with a mm-Wave Radar**, IEEE Radar Conference

Skills

Tools	Python, SQL, \LaTeX , VSCode, Jupyter, AWS, Docker, Git, Bitbucket, Linux
Packages	Numpy, Pandas, Scikit-learn, Matplotlib, PyTorch, TensorFlow, socket
Techniques	Neural Networks, YOLO, DBSCAN, SVM, Kalman Filter, decision tree, k-means, PCA, micro-Doppler
Applications	Classification, Regression, Clustering, Image Classification, Object Detection, Activity Recognition, Data Engineering (EDA)
Side Projects	Image Segmentation [code] LeetCode [link] Kaggle [link]
Languages	English (proficient), Turkish (native), Azerbaijani (native), Russian (intermediate), Italian (beginner)