Kahraman Kostas

PHD IN COMPUTER SCIENCE

Ankara, Türkiye

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Education

Heriot-Watt University
Edinburgh, UK

DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE   —   *2019- 2024*

- **Thesis Title:** *Behaviour-based Security with Machine Learning on IoT Networks | Working on IoT security during my PhD focused on solving device identification and intrusion detection problems in IoT networks with classical machine learning and deep learning methods by observing network behaviours.*

University of Essex
Colchester, UK

MASTER OF SCIENCE IN COMPUTER NETWORKS AND SECURITY, WITH DISTINCTION   —   *2017 - 2018*

- **Qualifications:**, *IP Networking and Applications, Computer Security, Converged Networks and Services, Mobile Communications, Networks Laboratory, Network Security, Professional Practice and Research Methodology, MSc Project And Dissertation*
- **Thesis Title:** *Anomaly Detection in Networks Using Machine Learning* ○

Anadolu University
Eskişehir, Turkey

BACHELOR OF ART IN TURKISH LANGUAGE AND LITERATURE, GPA: 3.41   —   *2012 - 2015*

- *It is an undergraduate program focusing on the linguistic, literary and cultural aspects of the Turkish language. Students participate in a curriculum that explores the evolution of Turkish literature, develops language proficiency and fosters a nuanced understanding of Turkish cultural heritage.*

Marmara University
Istanbul, Turkey

BACHELOR OF SCIENCE IN COMPUTER EDUCATION AND INSTRUCTIONAL TECHNOLOGY, GPA: 74.74   —   *2005- 2009*

- **Qualifications:** *Information Technology in Education, Computer Hardware, Programming Languages, Computer Networks & Communications, Operating Systems and Applications, Instructional Technology and Material Development, Authoring Languages for the Internet, Flash and Web Design, Internet Applications in Education, Design of Educational Computer Games, Authoring Languages for PC.*

Experience

Turkish Ministry of National Education
Ankara, Turkey

NATIONAL EDUCATION SPECIALIST   —   *Sept. 2024 - Present*

- Developing educational applications for students living abroad.

Heriot-Watt University
Edinburgh, UK

PHD CANDIDATE / TEACHING ASSISTANT   —   *Oct 2019 - Jan 2021*

- Teaching assistant and lab demonstrator of Data Communications and Networking
- Teaching assistant and lab demonstrator of Computer Network Security
- Teaching assistant and lab demonstrator of Advanced Network Security
- Teaching assistant and lab demonstrator of Software Development 1(Java)

Huawei UK Edinburgh R&D
Edinburgh, UK

RESEARCH INTERN   —   *Feb 2022 - Aug 2022*

- Creating solutions to indoor positioning problems with machine learning methods
- Distance estimating using WiFi fingerprinting
- Community detection using WiFi distances

Turkish Ministry of National Education
Manisa, Turkey

TEACHER TRAINER   —   *Sept. 2013 - Jan. 2016*

- Teaching teachers how to use interactive board and board software and practicing the use of materials.
- Teaching teachers about using online/offline software, electronic materials and applications in their field.
- Teaching teachers about network technologies and network security issues.

Turkish Ministry of National Education
Manisa, Turkey

COMPUTER TEACHER AND TECHNOLOGY CONSULTANT   —   *Sept. 2009 - Jan. 2016*

- Developing and implementing an effective computer-based curriculum.
- Assigning, assisting, and grading students on computer projects.
- Monitoring, assessing, and documenting student progress.
- Teaching computer fundamentals and programming language to students.

Skills

Programming Languages	***Advanced (Daily user):*** Python, LaTeX ***Intermediate (Used in several projects):*** Java, Julia, R, C, C++, ns2
Frameworks & Libraries	Jupyter, Matplotlib, Numpy, Pandas, NLTK, Scikit-learn, Scapy, Tensorflow, Keras, PyTorch
Analytical Tools & Platforms	SAS Viya, SAS Studio, SAS Visual Analytics, Model Studio, Base SAS Programming
Languages	***Native:*** Turkish ***Fluent:*** English ***Beginner:*** Arabic

Licenses & Certifications

2025	**Machine Learning and Data Analytics Certifications with SAS Viya**, Various certifications offered by SAS: SAS Viya Introduction, SAS Programming (1 and 2), SAS Visual Analytics (1 and 2), Model Management, Machine Learning.	*Turkey*
2020	**Learning Enhancement and Development Skills (LEADS)**, Associate Fellow of the Higher Education Academy –AFHEA.	*UK*
2020	**Neural Networks and Deep Learning**, Coursera.	*UK*
2020	**Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization**, Coursera.	*UK*
2020	**Introduction to Reinforcement Learning in Python**, Coursera.	*UK*
2019	**Julia for Data Scientists First Look**, LinkedIn	*UK*

Honors & Awards

2016	**Recipient**, YLSY - Full scholarship, provided by the Turkish Ministry of National Education, covers graduate study and living expenses ⌁	*Turkey*
2021	**1st Place**, the Huawei UK University Challenge Competition 2021 – a hackathon involves solving indoor positioning problems using data science methods. Won £7000/2 prize. ⌁	*UK*
2022	**6th Place**, Finalist of the Huawei Tech Arena - Enter The Metaverse (6th position -Best AI approach) Solving 3D graphics compression for efficient Metaverse architecture. ⌁	*UK*

References

PhD Supervisor	**Mike Just,** Associate Professor – Mathematical and Computer Sciences, M.Just@hw.ac.uk	*HWU, UK*
PhD Supervisor	**Michael Lones**, Associate Professor – Mathematical and Computer Sciences, M.Lones@hw.ac.uk	*HWU, UK*
Internship Supervisor	**Firas Alsehly**, Director of Positioning & Navigation – Huawei Tech. R&D (UK) Ltd, firas.alsehly@huawei.com	*Huawei, UK*

Publications

2025	**Individual Packet Features are a Risk to Model Generalisation in ML-Based Intrusion Detection.**, **Kahraman Kostas**, Mike Just, and Michael A. Lones. IEEE Networking Letters.	
2024	**Semantic Verbal Fluency in Native Speakers of Turkish: A Systematic Review of Category Use, Scoring Metrics and Normative Data in Healthy Individuals.**, Rabia Yasa Kostas, **Kahraman Kostas**, Sarah E. MacPherson, and Maria K. Wolters. Journal of Clinical and Experimental Neuropsychology.	*Q2*
Under Review	**GeMID: Generalizable Models for Device Identification in IoT Networks.**, **Kahraman Kostas**, Rabia Yasa Kostas, Mike Just, and Michael A. Lones. Internet of Things Journal ⌁	*Q1*
Under Review	**IoTGeM: Generalizable Models for Behaviour-Based IoT Attack Detection.**, **Kahraman Kostas**, Mike Just, and Michael A. Lones. Computer Networks Journal ⌁	*Q1*
2022	**IoTDevID: A behavior-based device identification method for the IoT**, **Kahraman Kostas**, Mike Just, and Michael A. Lones. IEEE Internet of Things Journal 9.23 (2022): 23741-23749. ⌁	*Q1*
2022	**WiFi Based Distance Estimation Using Supervised Machine Learning.**, **Kahraman Kostas**, Rabia Yasa Kostas, Francisco Zampella; Firas Alsehly. 2022 IEEE 12th International Conference on Indoor Positioning and Indoor Navigation (IPIN). IEEE. ⌁	*-*