Ranya Aloufi

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EDUCATION

Imperial College London, Design Engineering   London, United Kingdom
Doctor of Philosophy   *Jan 2019 - Expected January 2023*
Thesis: Preserving Privacy from the Edge for Internet of Things

University of Leicester, School of Informatics   Leicester, United Kingdom
Master of Advanced Computer Science (with Distinction)   *Jan 2017 - May 2018*
Thesis: Using BLE Technology to Enhance Student Experience
Relevant Coursework: Advanced System Design, Internet and Cloud Computing, Web Technologies, Service-Oriented Architectures, Distributed Systems and Applications

Taibah University, College of Computer Science and Engineering   Medina, Saudi Arabia
Bachelor of Computer Science (Excellent with First Class Honors)   *Aug 2008 - May 2012*
Thesis: Crowd Density Estimation System
Relevant Coursework: Programming, Algorithms and Data Structures, Computer Organization and Architecture, Computer Networks, Database Systems, Computer Security

EXPERIENCE

Internship   Sep 2020 - Dec 2020
Research Intern   *Arm*
- **Distributed Systems Team**: Developing and deploying distributed deep learning application

Teaching   Oct 2018 - Present
Lecturer   *Taibah University*
- **Designed and taught several computer science courses**: software analysis and modeling, introduction to software engineering, and intelligent systems
- **Administration**: student supervision, course coordinator, member of exams investigating committee, member of graduation planning committee

                                                          Feb 2014 - Oct 2018
Teacher Assistant   *Taibah University*
- **Designed and taught several computer science courses**: computer skills and programming (Java)
- **Technical**: managing and coordinating training courses for the community college faculty members

Designing   Nov 2012 - Jan 2014
Web Developer   *Taibah University*
- **Developed RESTful web services**: Press File service for Taibah University using RSS technology
- **Improved and maintained a variety of legacy services**: inventory and messaging services for IT deanship

Training   Jun 2012 - Nov 2012
International Computer Driving License Trainer   *Al Jazeera Institute*
- **Responsible for providing various training courses**: basic computer skills in MS office

RESEARCH INTERESTS

My research interests lie mainly in Internet of Things (IoT), Deep Learning, Privacy, and their intersection. In particular I'm interested in preserving privacy in IoT. Recently I've been interested in preventing companies from collecting emotion data about users from voice-controlled applications.

PUBLICATIONS

- **Paralinguistic Privacy Protection at the Edge**, in arXiv, 2020

- **Privacy-preserving Voice Analysis via Disentangled Representations**, in Cloud Computing Security Workshop (CCSW), in conjunction with ACM CCS 2020, November 2020, New York, USA.

- **Poster: Privacy-Preserving Speech Analysis using Emotion Filtering at the Edge**, in conjunction with ACM SenSys 2019, November 2019, New York, USA.

- **Emotion Filtering at the Edge**, in the 1st Workshop on Machine Learning on Edge in Sensor Systems (Sensys-ML), in conjunction with ACM SenSys 2019, November 2019, New York, USA.

- **Emotionless: Privacy-Preserving Speech Analysis for Voice Assistants**, in Privacy Preserving Machine Learning, ACM CCS 2019 Workshop, November 2019, London, UK.

Awards

- (2019) Awarded Black Hat Europe Student Scholarship (750 £)

- (2019) Awarded Best Poster at ACM SenSys/BuildSys

- (2019) Awarded ACM SenSys/BuildSys Travel Grant (1000 $)

- (2012) First Level Position (Gold Feather) Project, at "Third scientific conference for higher education students in Kingdom of Saudi Arabia" among 34 universities and over 160 scientific research in science and engineering

Skills

- **Technical**

    Languages: Python, C++, C#, Java, JavaScript

    Databases: MySQL, NoSQL, Apache Hadoop

    Web Development: HTML, CSS/Bootstrap, jQuery, XML, JSON, JSP, Asp.Net, Spring MVC

    Deep Learning Frameworks: TensorFlow, PyTorch, Keras, Jupyter

Volunteer Experience

- (2020) Young People Talk at City Lions Digital Festival

- (2019-Present) Member of Knowledge platform project for e-learning courses

- (2019-Present) Member of Saudi Society at Imperial College London

- (2017-2018) Member of Saudi Society at the University of Leicester