# Mohammad Malekzadeh

Ph.D. Student in Computer Science at Queen Mary University of London

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1. EDUCATION

2018 (APR) - Present Visiting Ph.D. Student

Dyson School of Design Engineering, Faculty of Engineering, Imperial College London - working with Dr. Hamed Haddadi

2017 (JAN) - Present Ph.D. Student in Computer Science

Centre for Intelligent Sensing,

School of Electronic Engineering and Computer Science,

Queen Mary University of London.

Advisors: Prof. Andrea Cavallaro and Dr. Richard G. Clegg

2009 (SEP) - 2011 (SEP) M.S.: IT Engineering - Computer Networks,

Computer Engineering Department,

Sharif University of Technology, Tehran, Tehran, Iran.

Thesis: "Link's Sign Prediction in Signed Social Networks", Thesis Grade: 19.8/20

GPA: A (17.28 / 20)

2004 (SEP) / 2008 (SEP) B.S.: Computer Engineering - Software

Engineering Department,

Shahid Chamran University, Iran

Thesis: "Persian CAPTCHA", Thesis Grade: 20/20

GPA: A (17.43 / 20)

2. EMPLOYMENT

2019 (JUN) – 2019 (SEP) PhD Intern in Machine Learning at Brave Research

Brave Software, London, UK

2018 (APR) – 2018 (NOV) Research Assistant in Databox Project (databoxproject.uk)

Imperial College London, UK

2017 (NOV) – 2019 (MAY) **Teacher Assistant (Demonstrator)** 

Imperial College London and Queen Mary University of London, UK

2014 (FEB) – 2016 (DEC) Head of Information and Communication Technology Institute

Persian Gulf University, Bushehr, Bushehr, Iran

2012 (JAN) – 2016 (DEC) Lecturer in Computer Engineering

Persian Gulf University, Bushehr, Bushehr, Iran

2016 (JUN) – 2016(SEP) Software Engineer at ChetorPro (chetor.com/pro)

Business Engineering 360 (BE360.ir), Iran

2014 (SEP) – 2016(FEB) Software Engineer at Shanab (shanab.pgu.ac.ir)

Persian Gulf University, Bushehr, Bushehr, Iran

2010 (JAN) – 2011 (SEP) Research Assistant in Digital Media Lab

Sharif University of Technology, Iran.

### 3. AREA OF INTERESTRS

- Present: from 2017, I have been working on Machine Learning for Privacy-Preserving Personal Data Analytics,
  particularly for time-series data. I am working on the design and implementation of machine learning algorithms for
  locally analyzing time-series data generated by sensors embedded into mobile and wearable devices.
- Past: I am interested in Machine Learning and Data Mining as well as Software Engineering. In my research
  career, I have had the opportunity to work on: Complex Information and Social Networks, Data Mining, Game
  Theory and its Applications, Statistical Modeling, Software Development Principles and Management.

### 4. PUBLICATIONS

- 2019: Mohammad Malekzadeh, Richard G. Clegg, Andrea Cavallaro, and Hamed Haddadi. "Privacy and Utility Preserving Sensor-Data Transformations". Accepted to appear in Pervasive and Mobile Computing (PMC) Journal, Elsevier.
- 2019: Mohammad Malekzadeh, Richard G. Clegg, Andrea Cavallaro, and Hamed Haddadi. "Mobile Sensor Data Anonymization". The 4th ACM/IEEE International Conference on Internet-of-Things Design and Implementation, 15-18 April 2019, Montreal, Canada.
- 2018: Mohammad Malekzadeh, Richard G. Clegg, Andrea Cavallaro, and Hamed Haddadi. "Protecting Sensory Data against Sensitive Inferences". In Proceedings of the 1st EuroSys Workshop on Privacy by Design in Distributed Systems (W-P2DS 2018), April 23, 2018, Porto, Portugal.
- 2018: Mohammad Malekzadeh, Richard G. Clegg, and Hamed Haddadi. "Replacement AutoEncoder: A Privacy-Preserving Algorithm for Sensory Data Analysis". The 3rd ACM/IEEE International Conference on Internet-of-Things Design and Implementation, 17-20 April 2018, Orlando, Florida, U.S.A.
- 2017: Reza Gharibi, Mohammad Malekzadeh, "Gamified Incentives: A Badge Recommendation Model to Improve User Engagement in Social Media Sites", International Journal of Advanced Computer Science and Applications(IJACSA), 8(5), 2017.
- 2014: Marziyeh Barghandan, Mohammad Malekzadeh, Atefeh Safdel and Iren Mazloomzadeh, "A Multi-Generational Social Learning Model: the Effect of Information Cascade on Aggregate Welfare", the 2014 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining ASONAM 2014, Beijing, China. August 17-20, 2014.
- 2011: Mohammad Malekzadeh, MohammadAmin Fazli, Pooya Jalaly Khalilabadi, Hamid R. Rabiee, MohammadAli Safari, "Social Balance and Signed Network Formation Games", The 5th SNA-KDD Workshop '11 (SNA-KDD'11), August 21, 2011, San Diego CA, USA.
- 2008: Mohammad Malekzadeh and Mehdy Bohlool, "Persian CAPTCHA system to prevent automatic subscribing of software robots in web pages", 13th National CSI Computer Science, Kish, Iran, 2008.

## **Working Papers**

- 2019: Mohammad Malekzadeh, Dimitrios Athanasakis, Hamed Haddadi, and Ben Livshits. "Privacy-Preserving Bandits". https://arxiv.org/pdf/1909.04421.pdf
- 2019: Edoardo Lisi, Mohammad Malekzadeh, Hamed Haddadi, F. Din-Houn Lau, Seth Flaxman. "Modeling and Forecasting Art Movements with CGANs". https://arxiv.org/pdf/1906.09230.pdf

# **Others**

- 2019: "Fairness in Algorithmic Decision Making".
- o 2018: "Privacy-Preserving Sensor Data Analysis for Edge Computing".
- 2017: "Towards Privacy-Preserving IoT Data Publishing"

## **5.TEACHING EXPERIENCES**

- I was teacher assistant of an undergraduate course (Sensing and IoT), 2018-2019 at Imperial College
- I was teacher assistant of a graduate course (Data Analytics), and two undergraduate courses (Software Engineering, and Computer Security), 2017-2019 at Queen Mary University of London.
- I was Teacher of "Fundamental Of Programming (C Language)", "Computer Architecture", "Operating Systems Concepts", "Software Engineering", "Advanced Programming (Java Language), "Numerical Analysis", "Technical and Scientific Presentation", "Complex and Dynamical Networks", and "Operating Systems Lab", 2011-2016, at Persian Gulf University

### **6.TECHNICAL SKILLS**

- Machine Learning Framework: Keras, Tensorflow, PyTorch, NumPy. SciPy, Scikit-Learn;
- o Software Development, Strong Computer Programming Background in Python;
- o Past Experiences:
  - Web Development, familiar with HTML, CSS, JavaScript, AngularJS, PHP and Laravel Framework;
  - Network and Graph Tools, familiar with Gephi, SNAP, and Graphviz;
  - Database, familiar with MySQL and MongoDB;
  - Architecture and Design, I have designed small to mid-sized systems, and integrated larger ones
    out of existing pieces. Comfortable with the UML and design documentation.

## 7.AWARDS, HONORS, GRANTS

- [2019] I was awarded a grant of £290 covering registration to Privacy Preserving Machine Learning workshop at CCS conference in London.
- [2019] I was awarded a \$700 grant covering travel expenses to IoTDI 2019 conference in Montreal, Canada.
- [2018] Our team earned first place in Imperial College AlHack 2018 for Brooklyn Housing Challenge. Nov2018.
- [2018] I was accepted on to the Alan Turing Institute Data Study Group, covering all the travelling and accommodation expenses, April 2018.
- [2018] I was awarded a grant covering registration to top-tier systems conference EuroSys 2018 in Porto, Portugal.
- [2018] I was accepted on to the **2nd CommNet2 PhD Spring School**, covering all the travelling and accommodation expenses. March 2018.
- [2017] I was awarded a \$30000 grant of Microsoft Azure storage and compute for one year in 2018.
- [2017] I was awarded a grant of \$500 covering travel and lodging to top-tier systems conference EuroSys 2017 in Belgrade, Serbia.
- [2017] I was awarded a **Ph.D. studentship**, to work on privacy-preserving personal data analytics, from **Queen Mary University of London, Life Sciences Initiative** in 2017.
- [2014] I was ranked **1th** among more than **30** faculty members of engineering department at Persian Gulf University as **the best teacher of the year**, 2014.
- [2009] I was ranked 2th among more than 50 computer engineering students during the bachelor's degree in Shahid Chamran University of Ahvaz, 2008
- [2009] I was ranked **10th** among more than **10,000** participants taking part in the **M.Sc. entrance exam of IT Engineering** in Iran, 2009.

## **8.SERVICES and EXPERIENCES**

- External Reviewer for: Nature Communications, World Wide Web Journal, The Web Conference.
- Program Committee: AMV2018.
- Shadow PC: <u>EuroSys2018</u>.

9.LANGUAGES: English (fluent), Persian (native).

10.REFERENCES: Upon Request.