## WALEED IQBAL

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Short Bio: Waleed Iqbal is an experienced and highly cited researcher with more than 08 years of cutting-edge research and teaching experience in prestigious institutes including Queen Mary University of London (UK) and Information Technology University (Pakistan). He has authored (and co-authored) more than 13 research papers, including in leading international journals and peer-reviewed international conference proceedings. He has taught and assisted various courses both at Undergraduate (UG) and Postgraduate (PG) levels during his career. He is an invited reviewer for numerous world-leading high-impact venues such as AAAI ICWSM, ACM IMC, and ACM SIGCOMM CCR. In past, he was also affiliated with Ibtidah Solutions Pvt. Limited as Machine Learning Consultant in advisory capacity.



#### **EDUCATION**

#### 2020-2024 Doctor of Philosophy (Ph.D.), Computer Science

- > Queen Mary University of London, UK
- > Thesis: Exploring online manifestation of real-world inequalities.
- > Funded By: Queen Mary Postgraduate Research Studentships.

### 2015–2018 M.S. Computer Science

- > Information Technology University, Lahore, Pakistan
- > Thesis: Analysis of Computer Networking Research: A Bibliometric Study.
- > Funded By: Information Technology University Graduate Student Fellowship.

#### 2009–2013 B.Sc. Electrical Engineering

- > University of The Punjab, Lahore, Pakistan
- > Project: Analysis of VoIP Structure and Standards: {Deployment of an Open Source VoIP Network for an Organization with Enhanced Services}

#### 2007-2009 F.Sc. Pre-Engineering

- > BISE. Lahore. Pakistan
- > Funded By: Punjab Group of Colleges Merit Based Scholarship.

#### Secondary School Certificate/Matriculation 2005-2007

> BISE, Lahore, Pakistan



## ACADEMIC AND PROFESSIONAL EXPERIENCE

#### Present September 2022

## Teaching Fellow, QMUL, UK

#### Courses:

- > ECS417U Fundamentals of Web Technologies (Semester B 2022/23)
- > MSc Big Data Processing Final Dissertation Supervision

#### March 2023 March 2020

#### Machine Learning Consultant, Івтіран Solutions Pvt. Liмітер, Pakistan

- > Consultancy for Machine Learning team building.
- > Advising Machine Learning team on data analytics and model design.
- > Strategic recommendations for client's system design.

#### September 2022 September 2020

#### Lab Demonstrator, QMUL, UK Courses:

- > ECS766P Data Mining (Semester A 2022/2023, Semester C 2021/2022, Semester C 2020/2021)
- > ECS417U Fundamentals of Web Technologies (Semester B 2020/21)
- > ECS607U Data Mining (Semester A 2021/2022)
- > ECS781P Cloud Computing (Semester B 2021/22, Semester B 2020/21)
- > ECS781A Cloud Computing (Semester B 2021/22, Semester A 2019/20)
- > ECS780P Computer Programming (Semester A 2021/2022)
- > ECS637U/ECS757P Digital Media and Social Networks (Semester B 2020/21)
- > ECS401U Logic and Discrete Structures (Semester A 2019/20)

#### May 2022 January 2022

#### Teaching Associate, QMUL, UK

> ECS417U Fundamentals of Web Technologies (Semester B 2021/22, Semester B 2020/21)

#### December 2019 September 2019

### Teaching Assistant and Lab Instructor, ITU, LAHORE, Pakistan

- > Preparation of course and lab material for Computer and Communication Networks course for BS Electrical Engineering 2016 final year.
- > Conduct and evaluation of students in labs.
- > Evaluation of assignments and quizzes in course.
- > Conduct supplementary tutorials to support course contents.

#### August 2019 June 2018

#### Affiliated Researcher, IHSAN LAB, ITU, LAHORE, Pakistan Project(s):

- > Scientometric Analysis of Computer Networking Research.
- > Publication titled "Five decades of the ACM special interest group on data communications (SIG-COMM) a bibliometric perspective" in SIGCOMM Computer Communication Review.
- > Publication titled "A Bibliometric Analysis of Publications in Computer Networking Research" in Springer Scientometrics Journal.

#### March 2018 September 2017

#### Teaching Assistant and Lab Instructor, ITU, LAHORE, Pakistan

- > Preparation of course and lab material for Introduction to Programming course for BS management and Technology 2017 freshmen.
- > Conduct and evaluation of students in labs.
- > Evaluation of assignments and quizzes in course.

#### June 2017 November 2015

### Graduate Fellow (Research Associate and Teaching Assistant), ITU, LAHORE, Pakistan Projects:

- > Evaluation Study of link quality in 802.15.4 Zigbee Protocol.
- > Deployment and Evaluation of Performance of Educational Volunteers in Government Schools.

### Courses Assisted:

- > Operating Systems (UG)
- > Data Structures (UG)
- > Object Oriented Programming (UG)
- > Advanced Operating Systems (PG)
- > Advanced Topics in Artificial Intelligence (PG)

## August 2011

#### Engineering Intern, PTCL, LAHORE, Pakistan

#### September 2011

- > Assistance of Senior Engineer in enhancement of existing ISP Network.
- > Monitoring and troubleshooting of different problems in configurations of network devices.

## PUBLICATIONS

#### DATA-DRIVEN ARTIFICIAL INTELLIGENCE IN EDUCATION: A COMPREHENSIVE REVIEW

**JULY 2023** 

Kashif Ahmad, Waleed Iqbal, Ammar El-Hassan, Junaid Qadir, Driss Benhaddou, Moussa Ayyash, Ala Al-Fuqaha.

Submitted in IEEE Transactions on Learning Technologies (Major Revision), (Impact Factor: 3.7).

## LADY AND THE TRAMP NEXTDOOR: ONLINE MANIFESTATIONS OF REAL-WORLD INEQUALITIES IN THE NEXTDOOR SOCIAL NETWORK JUNE 2023

Waleed Iqbal, Vahid Ghafouri, Gareth Tyson, Guillermo Suarez-Tangil, Ignacio Castro.

Accepted as Full Paper in 17th International AAAI Conference on Web and Social Media (ICWSM), 2023 (Winter Acceptance Rate: 7%).

## EXPLORING CROWDSOURCED CONTENT MODERATION THROUGH LENS OF REDDIT DURING COVID-19

DECEMBER 2022

Accepted as Full Paper in Asian Internet Engineering Conference (AINTEC), 2022

Waleed Iqbal, Muhammad Haseeb Arshad, Gareth Tyson, Ignacio Castro.

#### **EXPLORING ONLINE MANIFESTATIONS OF REAL-WORLD INEQUALITIES**

SEPTEMBER 2022

Waleed Igbal, Gareth Tyson, Vahid Ghafouri, Guillermo Suarez-Tangil, Ignacio Castro.

Accepted as Poster Paper in ACM Internet Measurement Conference (IMC), 2022.

#### A DEEP DIVE INTO COVID-19 RELATED MESSAGES ON WHATSAPP IN PAKISTAN

OCTOBER 2021

R. Tallal Javed, Muhammad Usama, Waleed Iqbal, Junaid Qadir, Gareth Tyson, Ignacio Castro, and Kiran Garimella.

Accepted as Full Paper in Springer Social Networks and Mining (SNAM) Journal, 2021. (Impact Factor: 3.87)

#### CHARACTERISING THE IETF THROUGH THE LENS OF RFC DEPLOYMENT

AUGUST 2021

Stephen McQuistin, Mladen Karan, Prashant Khare, Colin Perkins, Gareth Tyson, Matthew Purver, Patrick Healey, **Waleed Iqbal**, Junaid Qadir, Ignacio Castro.

Accepted as Full Paper and Poster Paper in ACM Internet Measurement Conference (IMC), 2021. (Acceptance Rate: 28%)

#### A FIRST LOOK AT COVID-19 MESSAGES ON WHATSAPP IN PAKISTAN

DECEMBER 2020

R. Tallal Javed, Mirza Elaaf Shuja, Muhammad Usama, Junaid Qadir, **Waleed Iqbal**, Gareth Tyson, Ignacio Castro, and Kiran Garimella.

Accepted as Full Paper in IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), 2020. (Acceptance Rate: 17%)

#### LEVERAGING DATA SCIENCE TO COMBAT COVID-19: A COMPREHENSIVE REVIEW

AUGUST 2020

Siddique Latif, Muhammad Usman, Sanaullah Manzoor, **Waleed Iqbal**, Junaid Qadir, Gareth Tyson, Ignacio Castro, Adeel Razi, Maged N Kamel Boulos, Adrian Weller, Jon Crowcroft.

Accepted as Full Paper in IEEE Transaction on Artificial Intelligence, 2020.

#### SECURING MACHINE LEARNING (ML) IN THE CLOUD: A SYSTEMATIC REVIEW OF CLOUD ML SECURITY

JULY 2020

Adnan Qayyum, Aneeqa Ijaz, Muhammad Usama, Waleed Iqbal, Junaid Qadir, Yehia Elkhatib, and Ala Al-Fuqaha

Accepted as Full Paper in Frontiers in Big Data, 2020. (Impact Factor: 3.61)

# Five decades of the ACM special interest group on data communications (SIGCOMM) a bibliometric perspective October 2019

Waleed Iqbal, Junaid Qadir, Saeed-Ul Hassan, Rana Tallal Javed, Adnan Noor Mian, Jon Crowcroft, Gareth Tyson.

Accepted as Editorial Paper in ACM SIGCOMM Computer Communication Review, 2019. (Impact Factor: 3.577)

#### A BIBLIOMETRIC ANALYSIS OF PUBLICATIONS IN COMPUTER NETWORKING RESEARCH

APRIL 2019

Waleed Iqbal, Junaid Qadir, Gareth Tyson, Adnan Noor Mian, Saeed Ul Hassan, Jon Crowcroft

Accepted as Full Paper in Springer Scientometrics Journal, 2019. (Impact Factor: 3.801)

#### EXPERIMENTAL STUDY OF LINK QUALITY IN IEEE 802.15. 4 USING Z1 MOTES.

Tabish Manzoor, **Waleed Iqbal**, Eisha Tir Razia, Samia Razaq.

MAY 2016

Adnan Noor Mian, Sheeraz A Alvi, Raees Khan, Muhammad Zulgarnain, Waleed Iqbal.

Accepted as Full Paper in IEEE International Wireless Communications and Mobile Computing Conference (IWCMC), 2016. (Acceptance Rate: 30%).

## Bridging Educational Gaps through Volunteers; Implementation, Problems and Their Solutions

APRIL 2016

Accepted as Poster in International Conference on Information and Communication Technologies and Development (ACM ICTD), 2016.

#### March, 2023

## Natural Language Processing with Classification and Vector Spaces, DEEPLEARNING.AI, Coursera

- > Natural Language Processing
- > Supervised Learning
- > Word Embeddings

#### November, 2021

#### Learning Data Visualization, LINKEDIN LEARNING, LinkedIn

> Data Visualization

#### November, 2021

#### Statistics Foundations: The Basics, LINKEDIN LEARNING, LinkedIn

> Statistics

#### September, 2017

#### Neural Network and Deep Learning | Deep Learning Specialization, DEEPLEARNING.AI, Coursera

- > Logistic Regression with a Neural Network
- > Shallow Neural Networks

Python Tensorflow

#### September 2017

#### Data Science Toolkit | Data Science Specialization, JOHN HOPKINS UNIVERSITY, Coursera

- > Setting Tools for Data Science Projects.
- > Hands-on experience on RStudio.

RStudio Microsoft Excel

#### January 2013

### Cisco Certified Network Associate (Routing and Switching), CISCO SYSTEMS, USA

- > Basics of ISP Design.
- > Deployment of Routing and Switching Protocols.

Cisco Packet Tracer GNS3 PuTTY

#### January 2013

#### Cisco Certified Network Associate (Voice), CISCO SYSTEMS, USA

- > Basics of VoIP Network Design.
- > Deployment of Virtual Call Manager.

Cisco Call Manager PuTTY



## **SKILLS**

**Programming** Python, MATLAB, C Language, R Language, and C++

**Technical Tools** Jupyter Notebook, MATLAB, SPSS, RStudio, Git, and Wireshark

> IntelliJ Idea, Eclipse, Visual Studio Code, Sublime Text, and Atom **IDEs**

Middleware Digium Asterisk, Cisco Call Manager

**Operating Systems** Mac OS X, Windows, Linux RedHat, Linux CentOS, and Linux Ubuntu

Adobe Photoshop CS5, Microsoft Visio, and Microsoft Office



#### IMPORTANT COURSEWORK

- > Topics in Artificial Intelligence
- > Machine Learning
- > Data Mining
- > Internet of Things
- > Advance Algorithm Analysis
- > Technology for Development
- > Network Security
- > Computer Networks

#### ACHIEVEMENTS

- > Queen Mary, University of London Principal Post-Graduate Research Scholarship Award for 2020-2023.
- > Placeholder, Dean's Honors List, Information Technology Lahore, Pakistan. 2018
- > Graduate Student Fellowship, Information Technology University Lahore, Pakistan. 2015. (This fellowship position is awarded to top 10 students of a batch at ITU.)
- > Laptop Award under Chief Minister Laptop Scheme, University of the Punjab, Lahore, Pakistan. 2011.
- > Tuition Fee Award, University of the Punjab, Lahore, Pakistan. 2009.
- > Merit Scholarship for Tuition Fee, Punjab Group of Colleges, Lahore, Pakistan. 2007.

## ACADEMIC SERVICES

#### Reviewer

- > AAAI Conference on Web and Social Media (ICWSM) 2023)
- > ACM Internet Measurement Conference 2022 (Shadow TPC)
- > ACM SIGCOMM Computer Communication Review (CCR)

## PROFESSIONAL AFFILIATIONS

- > Pakistan Engineering Council (Registered and Supervisory Engineer under C-5/C-6 Category
- > Institute of Electrical and Electronics Engineers (IEEE) USA (Student Member)
- Association of Computing Machinery (ACM) USA (Student Member)

## **66** References

> References will be provided upon request