Ahmed Alia

Curriculum Vitae

IAS-7, Juelich Research Center
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Current Position

Researcher **Machine and Deep Learning for Crowd Data Analysis**, *Juelich Research Center*, Germany.

Ph.D Student **Information Technology**, *Wuppertal University*, Germany.

Fields of Interests

Data Analysis, Machine Learning, Deep Learning, Real-Time Intelligent Systems, Computer Vision, and Meta-heuristics Algorithms.

Education

2012–2015 **Master in Computing**, *Faculty of Graduate Studies, Birzeit University*, Palestine, GPA: 90.8% (with distinction).
Thesis Title: Modified Binary Cuckoo Search using Rough Set Theory for Feature Selection.

2002–2006 **Bachelor in Computer Science, Faculty of Information Technology**, *An Najah National University*, Palestine, GPA: 83.4%.

2000–2001 **High Secondary Certificate**, *Jenin Secondary School, Palestine*, GPA: 88.2%, Scientific Branch.

International Internships

6–8/2019 **Research in Big Data**, *Paris Sud University*, France.

6–7/2009 **Vocational Training on Networking Technology**, *Korea University of Technology And Education*, South Korea.

Work Experience

2020–Present **Researcher**, *Institute for Advanced Simulation*, Juelich Research Center.

2019–2020 **Part Time Lecturer**, *Management Information System Department*, An Najah National University, Palestine.

2017–2020 **Research and Teaching Assistant**, *Information Technology Department*, An Najah National University, Palestine.

2008–2017 **Trainer and Web Developer**, *Korean Palestinian IT Institute of Excellenc*, An Najah National University, Palestine.

2010–2012 **IT Specialist (International Project)**, *Enhancing the learning/Teaching Process of Technology Education and Establishing the Multimedia Educaional Resources Center, funded by the World Bank*, An Najah National University, Palestine.

2008–2009 **Moodle Administrator and Training Coordinator (International Project)**, *Learning Innovation Teams project, funded by the World Bank*, An Najah National University, Palestine.

Awards

2020 **Research Cluster Award**, *funded by German Federal Ministry of Education and Research (BMBF: Funding number 01DH16027) within the framework of the Palestinian-German Science Bridge*.

2020 **A Scholarship for a Ph.D. Position in Germany**, *funded by German Federal Ministry of Education and Research (BMBF: Funding number 01DH16027) within the framework of the Palestinian-German Science Bridge*.

2019 **Research Internship in Paris Sud University (Erasmus+ Award)**, *funded by the European Union Research for research internship in Paris Sud University*.

2018 **High Throughput Computing Systems Award**, *funded by Fulbright*.

2014 **Android Application Development Award**, *funded by USAID*.

2003–2006 **Tuition Fee Award**, *Funded by An Najah National University*.

Publications

Journals

- **Alia, Ahmed**, Mohammed Maree, and Mohcine Chraibi. "A Hybrid Deep Learning and Visualization Framework for Pushing Behavior Detection in Pedestrian Dynamics." Sensors 22.11 **(2022)**: 4040. **Impact Factor = 3.874. SCOPUS.**
- **Alia, Ahmed**, and Adel Taweel. "Enhanced Binary Cuckoo Search With Frequent Values and Rough Set Theory for Feature Selection." IEEE access 9 **(2021)**: 119430-119453. **Impact Factor = 3.476. SCOPUS.**
- **Alia, Ahmed**, Mohammed Maree, and Mohcine Chraibi. "On the exploitation of GPS-based data for real-time visualisation of pedestrian dynamics in open environments." Behaviour & Information Technology (2021): 1-15. **Impact Factor = 3.32. SCOPUS.**
- **Alia, Ahmed**, and Adel Taweel. "Feature selection based on hybrid binary cuckoo search and rough set theory in classification for nominal datasets." I.J. Information Technology and Computer Science 4 (2017): 65.
- **Alia, Ahmed**, and Adel Taweel. "Hybrid nature inspired algorithms and rough set theory in feature selection for classification: A review." International Journal of Innovative Research in Computer and Communication Engineering 3 (2016): 7.

Conferences

- **Alia, Ahmed**, Mohammed Maree, and Mohcine Chraibi. A Real-Time Neural Network-based System for Pushing Detection in Crowded Event Entrances. Traffic and Granular Flow Conference, Indian Institute of Technology Delhi. 15 Oct 2022 - 17 Oct 2022. http://hdl.handle.net/2128/32081. [Talk: presented by Ahmed Alia].
- **Alia A**, Maree M, Haensel D , Chraibi M, Lügering H, Sieben A, and Üsten E. Two Methods for Detecting Pushing Behavior from Videos: A Psychological Rating System and a Deep Learning-based Approach. 10th Pedestrian and Evacuation Dynamics Conference, PED2021, Melbourne. 29 Nov 2021 - 30 Nov 2021. http://hdl.handle.net/2128/29436. [Talk: presented by Alia A and Üsten E].
- Challenges & Practices of Pedagogy & Instructional Technology Conference. American University in Cairo, Egypt. 11 March 2012 - 15 March 2012. [Attending].

Teaching Courses

Instructor	Machine Learning, Web Programming I, Web Programming II.
Teaching Assistant	Database I, Database II, Programming in Computer I, Programming in Computer II, Information Retrieval, Android Application Development, Introduction to Computer, Data Structure, Object Oriented Programming, Data Mining.
Trainer	PHP & MySQL, Oracle SQL, Primavera Project Management, ICDL, Android Application Development.

Computer Skills

Data Tools	Apache Spark with Scala, TensorFlow, Keras, NumPy, Pandas, RapidMiner, Weka.
Languages	C++, Java, Python, Scala, PHP.
Web	HTML, XML, CSS, JavaScript, RDF, RDFS, RDFa, OWL, SPARQL, Ontology.
Mobile	Android Application Development using Android Studio.
Databases	Oracle, SQLite, MySQL.
OS	Windows, Linux.
Others	OpenCV, Latex, Zotero, Eclipse, Photoshop, Primavera.

Languages

Arabic	Native Speaker
English	Good (Bachelor and Master in English, Master dissertation written in English, publications and presentations were in English)

References

Available upon request.