Bashar Talafha

PH.D. STUDENT

6201 Cecil Green Park Rd, Vancouver, BC V6T1Z1

📱 (+1) 604-834-1991 | ✉ bashartalafha@gmail.com | 🔗 bashar-talafha | ℞ ResearchGate | 🌐 Google Sholar

Summary

I am currently a PhD student in the School of Information at the University of British Columbia (UBC). I'm supervised by Dr. Muhammad Abdul-mageed. My broad research interests are in Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Sentiment and Social Media Analysis, Speech Technologies, and Multi-lingual/Multi-dialectal Information Processing. Previously, I earned a MSc and BSc degrees in Computer Science from Jordan University of Science and Technology. Before starting my PhD journey, I was a Sr. Data Scientist and NLU team leader in the Artificial Intelligence department at Mawdoo3 Ltd., Amman-Jordan. Before Mawdoo3, I was a Researcher and Machine Learning Engineer at Samsung Electronics, Amman-Jordan.

Education

UBC (University of British Columbia)   *Vancouver, Canada*

PH.D. IN INFORMATION STUDIES   *2021 - Present*

- Focus on Deep learning for Speech Processing

JUST (Jordan University of Science and Technology)   *Irbid, Jordan*

MSc. IN COMPUTER SCIENCE   *2014 - 2017*

- Thesis title: Using Deep Neural Networks for Aspect-based Sentiment Analysis
- GPA: 90.3
- Rate: Excellent

JUST (Jordan University of Science and Technology)   *Irbid, Jordan*

B.S. IN COMPUTER SCIENCE   *2010 - 2014*

- Graduation Project: AllSpeak (Speech2Speech translator, OCR, Text Translator, TTS)
- GPA: 78.2
- Rate: Very Good

Work Experience

Mawdoo3 Ltd.   *Amman, Jordan*

NLU TEAM LEADER   *2019 - Present*

- Developing a plan for the Banking Conversation Assistant project that covers the entire cycle of the project from defining the project scope, deliverables, risks, and dependencies, then maps out a path to complete the project successfully.

- Guide project execution (Agile)
- Risk and Quality Management
- Team Coaching
- Code Review
- Partnerships Establishing
- Ensure the business is prepared to adopt the change
- Candidates Interviewing
- Process Documentation
- Deliver based on requirements, on time and on budget
- Manage and communicate changes by balancing project constraints.

SR. DATA SCIENTIST

- Researching and innovating new Natural Language Processing (NLP) technologies based on machine learning and deep learning approaches for Arabic language.

- Dialect Translation
- Emotion Detection
- Semantic Text Similarity
- Language Modeling
- Profanity Detection
- Dialect Detection
- Voice Cloning
- Multi-task learning
- Sentiment Analysis
- Service Classification
- Paraphrasing

- Bulding different SOTA language models (ELMO, BERT, RoBERTa, etc.).
- Developing Docker images to support DevOps and Testing Teams in their pipelines.
- Writing and publishing research papers.
- Interviewing candidates.

SAMSUNG *Amman, Jordan*
SOFTWARE ENGINEER / MACHINE LEARNING *2016 - 2019*

- Explore areas to apply machine learning and deep learning models

  - Machine Translation
  - Language Modeling
  - Transfer Learning
  - Sequence Classification
  - Sequence Labeling

- Apply different Word Embeddings techniques (GloVe, word2vec, fasttext, ElMo)
- Develop web crawlers and data preprocessing scripts.
- Building a Microservices platform that presents all our AI-based components under one umbrella.
- Writing two patents and two papers.
- Leading D2SLC team
  - Mentoring and training up juniors and new staff.
  - Arranging weekly team meetings, focusing on targets and achievements
  - Interviewing candidates
- Participating in giving lectures about Machine Learning and Data Science.

Jordan University of Science and Technology *Irbid, Jordan*
RESEARCH AND TEACHING ASSISTANT *2014 - 2016*

- Natural Language Processing.
- Knowledge Engineering Using Ontologies.
- Developing web crawlers (from forums and Twitter)
- Developing an Annotation tool for sequence labeling tasks.

MercyCorps *(- NGOs Experience)* *Irbid, Jordan*
COMMUNITY LEADER IN MERCY CORPS' LEADERSHIP AND COMMUNITY DEVELOPMENT PROGRAM *2013 – 2014 & 2014 – 2016*

Smart Vision *Abu Dhabi, UAE*
SOFTWARE ENGINEER *02/2014 – 09/2014*

- Outsource in Abu Dhabi Department of Finance (DOF), controlling and supporting the Time Attendance System using ASP.NET, ORACLE and CRYSTAL REPORTS.

Minerets Tech. *(- Training stage)* *Amman, Jordan*
SOFTWARE ENGINEER *10/9/2013 – 10/12/2013*

- In charge of converting the company's main product, a desktop-based route accounting system, into a rich Internet application (RIA) [Sencha Ext JS, JavaScript, CSS, C#, ASP.NET]

Patents

Method And Apparatus For Processing Language Based On Trained Network Model *USA*
US PATENT *2020*

- Application number: 15/929824

Multilingual translation device and method *USA*
US PATENT *2019*

- Application number: 16390317

Publications

[Under Review] Bench-marking and Improving Arabic Automatic Image Captioning Through The Use of Multi-task Learning Paradigm *Virtual Event*
ARXIV PREPRINT *2022*

Sarcasm Detection and Quantification in Arabic Tweets *Virtual Event*
IEEE 33RD INTERNATIONAL CONFERENCE ON TOOLS WITH ARTIFICIAL INTELLIGENCE (ICTAI) *2021*

ALUE: Arabic Language Understanding Evaluation

Kyiv, Ukraine (Virtual)

Proceedings of the Sixth Arabic Natural Language Processing Workshop (WANLP)

2021

Multi-dialect arabic bert for country-level dialect identification

Barcelona, Spain

Conference: The 28th International Conference on Computational Linguistics (Coling2020)

2020

Unsupervised dialectal neural machine translation

Journal: Information Processing and Management

2020

Atar: attention-based LSTM for arabizi transliteration

Journal: International Journal of Electrical and Computer Engineering (IJECE)

2020

Mawdoo3 AI at MADAR Shared Task: Arabic Tweet Dialect Identification

Florence, Italy

Conference: Association for Computational Linguistics (ACL 2019)

2019

Team JUST at the MADAR Shared Task on Arabic Fine-Grained Dialect Identification

Florence, Italy

Conference: Association for Computational Linguistics (ACL 2019)

2019

Mawdoo3 AI at MADAR Shared Task: Arabic Fine-Grained Dialect Identification with Ensemble Learning

Florence, Italy

Conference: Association for Computational Linguistics (ACL 2019)

2019

Outperforming State-of-the-Art Systems for Aspect-Based Sentiment Analysis

Florence, Italy

Conference: IEEE/ACS 16th International Conference on Computer Systems and Applications (AICCSA 2019)

2019

JUST at imageclef 2019 visual question answering in the medical domain

Lugano, Switzerland

Conference: Conference and Labs of the Evaluation Forum (CLEF) 2019

2019

IoH-RCNN: Pursuing the Ingredients of Happiness using Recurrent Convolutional Neural Networks

Hawaii, USA

Conference: AAAI 2019

2019

Using a Hierarchical Softmax Based on the Huffman Coding Tree for Authenticating Arabic Tweets

Abu Dhabi, UAE

Conference: IEEE/ACS 16th International Conference on Computer Systems and Applications (AICCSA 2019)

2019

JUST at VQA-Med: A VGG-Seq2Seq Model

Avignon, France

Conference: Conference and Labs of the Evaluation Forum (CLEF) 2018

2018

Using long short-term memory deep neural networks for aspect-based sentiment analysis of Arabic reviews

Journal: International Journal Of Machine Learning And Cybernetics

2018

Aspect-Based Sentiment Analysis of Arabic Laptop Reviews

Yassmine Hammamet, Tunisia

Conference: The International Arab Conference on Information Technology (ACIT) 2017)

2017

An Enhanced Framework for Aspect-Based Sentiment Analysis of Hotels' Reviews: Arabic Reviews Case Study

Barcelona, Spain

Conference: International Conference for Internet Technology and Secured Transactions (ICITST-2016)

2016

Using Big Data Analytics For Authorship Authentication of Arabic Tweets

Limassol, Cyprus

Conference: 2015 IEEE/ACM 8th International Conference on Utility and Cloud Computing (UCC)

2015

A Hybrid Approach for Arabic Named Entity Disambiguation *Graz, Austria*

Conference: 15th International Conference on Knowledge Technologies and Datadriven Business *2015*

Human Annotated Arabic Dataset of Book Reviews for Aspect Based Sentiment Analysis *Rome, Italy*

Conference: 3rd International Conference on Future Internet of Things and Cloud (FiCloud 2015) *2015*

Honors & Awards

2021	**Four Year Fellowships (4YF)**, UBC / Ph.D. Award / 2021-2025	*Vancouver, Canada*
2021	**International Tuition Award**, UBC / Ph.D. Award / 2021 - 2025	*Vancouver, Canada*
2021	**President's Academic Excellence Initiative PhD Award**, UBC / Ph.D. Award / 2021 - 2022	*Vancouver, Canada*
2021	**R Howard Webster Foundation Fellowship** , UBC / Ph.D. Award / 2021 - 2022	*Vancouver, Canada*
2020	**1st place in the NADI shared task 1**, Coling 2020	*Barcelona, Spain*
2019	**2nd place in the MADAR shared task 2**, ACL 2019	*Florence, Italy*
2019	**3rd place in the MADAR shared task 1**, ACL 2019	*Florence, Italy*
2019	**4th place in the CL-AFF shared task**, Affective Content Analysis workshop at AAAI 2019 conference.	*Hawaii, USA*
2018	**Distinguished Employee Award** , Samsung / Samsung Research and Development Institute (SRJO)	*Amman, Jordan*
2017	**Best Project Award**, Samsung / Samsung Research and Development Institute (SRJO)	*Seoul, Korea*
2013	**Best Graduation Project Award**, JUST / Faculty of Computer and Information Technology	*Irbid, Jordan*

Certifications

Deep Learning Specialization

Coursera

- Sequence Models
- Convolutional Neural Networks
- Structuring Machine Learning Projects
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Neural Networks and Deep Learning

Machine Learning A-Z™: Hands-On Python & R In Data Science

Udemy

Skills

Research Skills: Academic writing using LaTeX, research methodology, reviewing, recognising research problems, keeping up to date with the cutting edge and SOTA papers in the field.
Machine Learning - Tensorflow, PyTorch, Keras, Scikit-learn, R, Mahout, Weka, RapidMiner, Matlab,
Programing Languages - Python, JAVA, C/C++, C#
Web - HTML, Javascript, Flask, Django, Sencha EXTJS, PHP, ASP, CSS, Bootsrap, Wordpress
Others - GIT, Linux, Docker, OpenAPI, Jenkins, MySQL, SQLite, Oracle, Android, Windows Phone, Cross-platform, Adobe Flash, Adobe Dreamwaver, Adobe Photoshop, Adobe After Effects, Adobe Lightroom, Microsoft Office, Communication and Presentation skills

References

References available upon request