Bilal **Ghanem**

NLP RESEARCHER

Edmonton, Canada

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Personal Information

Full Name: Bilal Hisham Hasan Ghanem.
Nationality: Jordanian.
Place of birth: Abu Dhabi – United Arab Emirates.
Date of birth: 14/06/1992.

Education

Universitat Politècnica de València - (UPV)
Valencia, Spain

PhD IN COMPUTER SCIENCE
Jan. 2018 - Dec. 2020

- Thesis Topic: On the Detection of False Information: From Rumors to Fake News.
- Supervisors: Paolo Rosso
- Cum laude

Arab American University - (AAUP)
Jenin, Palestine

MASTER IN COMPUTER SCIENCE
Sept. 2014 - July 2017

- Thesis Topic: Hybrid Arabic Text Plagiarism Detection System.
- Supervisors: Labib Arafeh
- GPA 3.33/4.0

Arab American University - (AAUP)
Jenin, Palestine

B.S. IN COMPUTER INFORMATION TECHNOLOGY
Sept. 2010 - Feb. 2014

- Final Project: Tejwal - It is a windows phone application that allows tourists to get information about archeological sites in Palestine by taking pictures of the places. The application provides textual and multimedia content to them.
- Supervisors: Moath Sabha
- GPA 3.14/4.0

Work Experience

Gartner
Quebec, Canada

SR PRINCIPAL QUANTITATIVE ANALYTICS
July 2022 - now

- Working on analyzing the world's job posts and extracting useful insights.

University of Alberta
Edmonton, Canada

POSTDOCTORAL RESEARCHER
May 2021 - July 2022

- Working on question generation for educational texts.

Symanto
Valencia, Spain

RESEARCH SCIENTIST
April 2020 - Jan. 2021

- Creating NLP applications with focusing on psycholinguistic/psychology theories.

Symanto
Nuremberg, Germany

RESEARCHER
Nov. 2019 - Jan. 2020

- During this internship, I was working on detecting banks loans' defaulters from an NLP perspective.

Sorbonne Paris Nord University
Paris, France

VISITING RESEARCHER AT LIPN LAB
June 2019 - Sept. 2019

- During my research visit, I was working on detecting the online suspicious accounts, called trolls, from an emotional perspective.

Al-Quds Open University
Ramallah, Palestine

DATA AUDITOR
Feb. 2016 - Nov. 2017

- Preparing detailed reports from registration data using SQL queries.
- Reporting issues/problems to the concerned registration department branch/es to address and resolve them.

Al-Shams DS. *Jenin, Palestine*

Software developer *Sep. 2014 - Feb. 2016*

- Developing and updating a full system with a Web interface for customers that contains billing, HR, and Banking modules, with an advanced reporting component.
- Integrating new modules for selling drugs.

Digital Dynamics *Al-Sharjah, United Arab Emirates*

Software developer *Apr. 2014 - Sep. 2014*

- Developing and updating windows applications using c#.net.
- Testing new models done by our team and planning for new ideas to be applied.
- Customer support with training users to use new or modified models.

Awards

International

2020	**Cum laude**, PhD thesis: On the Detection of False Information: from Rumors to Fake News.	*Valencia, Spain*
2019	**First place**, CheckThat! shared task (verifying Arabic news) - Subtask D.	*Lugano,Switzerland*
2019	**Third place**, International Cybersecurity Contest, fake news track.	*Doha, Qatar*
2019	**Accepted research proposal**, EFL mobility grant.	*Paris, France*
2018	**First place**, AMI (Automatic Misogyny Identification) shared task - Subtask 2.	*Sevilla, Spain*

Talks

University of Alberta *Edmonton, Canada*

Talk on "Question Generation for Reading Comprehension Skills" *Sept. 2021*

- In this talk, I presented an overview over previous question generation systems, what is in common and how they are different, and I showed our current proposed approach.

University of Mannheim *Mannheim, Germany*

Talk on "FakeFlow: Fake News Detection by Modeling the Flow of Affective Information" *May 2021*

- In this talk, I presented our fake news detection model which utilizes the flow of affective information inside online new articles.

Universitat Politècnica de València - (UPV) *Valencia, Spain*

Tutorial on "On the Detection of False Information: From Rumors to Fake News" *March 2020*

- In this talk, I described the false information issue and how we approached it in our research group, with highlighting the role of affective information.

HBKU University *Doha, Qatar*

Tutorial on "Credibility in News: Fact Checking and Fake News Detection" *Oct. 2019*

- In this tutorial, I introduced the issue of fake news and its credibility with showing examples from previous and current works, with presenting some possible future works.

Academic Services

Journals

Knowledge-based Systems, TOIT, TOIS, IP&M, Online Social Networks and Media

Conferences and Workshops

ACL (2019), EMNLP (2020), CLEF (2018, 2019, 2020), LREC (2020), ECIR (2020), PAN (2019, 2020)

Program Committee Member

PAN (2020), SS at DSAA (2020)

Organizing Research Tasks

2021	**Shared Task at FIRE**, Arabic Misogyny Identification.	*Virtual Event*
2020	**Shared Task at CLEF**, Profiling Fake News Spreaders on Twitter.	*Thess., Greece*
2019	**Shared Task at FIRE**, Irony Detection in Arabic Tweets.	*Kolkata, India*
2019	**Shared Task at FIRE**, Author Profiling and Deception Detection in Arabic.	*Kolkata, India*

Technical Skills

CERTIFICATES

- Certified by more than 18 courses in different disciplines (text mining, machine learning, deep learning, big data, Oracle OCA (Pl/SQL) etc.). Details are available in my LinkedIn.

CODING

- Excellent in object oriented programming using Python, very good in C#, and good in VB.net and Java.
- Excellent skills in machine learning frameworks as Scikit-learn as well Weka application.
- Excellent skills in Keras deep learning framework, very good skills in PyTorch, and additional some knowledge in other frameworks like Tensorflow.

Publications

Question Generation for Reading Comprehension Assessment by Modeling How and What to Ask

BILAL GHANEM, LAUREN LUTZ COLEMAN, JULIA RIVARD DEXTER, SPENCER MCINTOSH VON DER OHE, ALONA FYSHE   *2022*

- Findings of the Association for Computational Linguistics (ACL).

The Impact of Psycholinguistic Patterns in Discriminating between Fake News Spreaders and Fact Checkers

ANASTASIA GIACHANOU, **BILAL GHANEM**, ESTEBAN A RÍSSOLA, PAOLO ROSSO, FABIO CRESTANI, DANIEL OBERSKI   *2022*

- Data and Knowledge Engineering.

ArMI at FIRE 2021: Overview of the First Shared Task on Arabic Misogyny Identification

HALA MULKI, **BILAL GHANEM**   *2021*

- Working Notes of the Forum for Information Retrieval Evaluation (FIRE).

Indications of Depressive Symptoms During the COVID-19 Pandemic in Germany: Comparison of National Survey and Twitter Data

CAROLINE COHRDES, SEREN YENIKENT, JIAWEN WU, **BILAL GHANEM**, MARC FRANCO-SALVADOR, FELICITAS VOGELGESANG   *2021*

- JMIR Mental Health.

FakeFlow: Fake News Detection by Modeling the Flow of Affective Information

BILAL GHANEM, SIMONE PAOLO PONZETTO, PAOLO ROSSO, FRANCISCO RANGEL   *2021*

- The European Chapter of the Association for Computational Linguistics (EACL).

On the Impact of Emotions on the Detection of False Information

PAOLO ROSSO, **BILAL GHANEM**, ANASTASIA GIACHANOU   *2021*

- International Symposium on Electrical, Electronics and Information Engineering.

What Motivates You? Benchmarking Automatic Detection of Basic Needs from Short Posts

SANJA STAJNER, SEREN YENIKENT, **BILAL GHANEM**, MARC FRANCO-SALVADOR   *2021*

- The Association for Computational Linguistics (ACL).

Let-Mi: An Arabic Levantine Twitter Dataset for Misogynistic Language

HALA MULKI, **BILAL GHANEM**   *2021*

- Proceedings of the Sixth Arabic Natural Language Processing Workshop (WANLP) at EACL.

Detection of Conspiracy Propagators using Psycho-linguistic Characteristics

ANASTASIA GIACHANOU, **BILAL GHANEM**, PAOLO ROSSO   *2021*

- Journal of Information Science.

TexTrolls: Identifying Trolls on Twitter with Textual and Affective Features

BILAL GHANEM, DAVIDE BUSCALDI, PAOLO ROSSO   *2020*

- Workshop on Online Misinformation- and Harm-Aware Recommender Systems, co-located with RecSys.

FacTweet: Profiling Fake News Twitter Accounts

BILAL GHANEM, SIMONE PAOLO PONZETTO, PAOLO ROSSO *2020*
- International Conference on Statistical Language and Speech Processing (SLSP).

On the Impact of Emotions on the Detection of False Information

PAOLO ROSSO, BILAL GHANEM, ANASTASIA GIACHANOU *2020*
- European Conference on Natural Language Processing and Information Retrieval (ECNLPIR).

Overview of PAN 2020: Authorship Verification, Celebrity Profiling, Profiling Fake News Spreaders on Twitter, and Style Change Detection

JANEK BEVENDORFF, BILAL GHANEM, ANASTASIA GIACHANOU, MIKE KESTEMONT, ENRIQUE MANJAVACAS, MARTIN POTTHAST, FRANCISCO RANGEL, PAOLO ROSSO *2020*
- Conference and Labs of the Evaluation Forum (CLEF).

Irony Detection in a Multilingual Context

BILAL GHANEM, JIHEN KAROUI, FARAH BENAMARA, PAOLO ROSSO, VÉRONIQUE MORICEAU *2020*
- European Conference on Information Retrieval (ECIR).

The Role of Personality and Linguistic Patterns in Discriminating between Fake News Spreaders and Fact Checkers (Best paper award)

ANASTASIA GIACHANOU, ESTEBAN A. RÍSSOLA, BILAL GHANEM, FABIO CRESTANI, PAOLO ROSSO *2020*
- International Conference on Natural Language & Information Systems (NLDB).

Shared Tasks on Authorship Analysis at PAN 2020

JANEK BEVENDORFF, BILAL GHANEM, ANASTASIA GIACHANOU, MIKE KESTEMONT, ENRIQUE MANJAVACAS, MARTIN POTTHAST, FRANCISCO RANGEL, PAOLO ROSSO *2020*
- European Conference on Information Retrieval (ECIR).

An Emotional Analysis of False Information in Social Media and News Articles

BILAL GHANEM, PAOLO ROSSO, FRANCISCO MANUEL RANGEL PARDO *2020*
- ACM Transactions on Internet Technology (TOIT).

IDAT@FIRE2019: Overview of the Track on Irony Detection in Arabic Tweets

BILAL GHANEM, JIHEN KAROUI, FARAH BENAMARA, VÉRONIQUE MORICEAU, PAOLO ROSSO *2019*
- Working Notes of the Forum for Information Retrieval Evaluation (FIRE 2019).

Overview of the Track on Author Profiling and Deception Detection in Arabic

FRANCISCO RANGEL, PAOLO ROSSO, ANIS CHARFI, WAJDI ZAGHOUANI, BILAL GHANEM, JAVIER SÁNCHEZ-JUNQUERA *2019*
- Working Notes of the Forum for Information Retrieval Evaluation (FIRE 2019).

On the Author Profiling and Deception Detection in Arabic shared task at FIRE

FRANCISCO RANGEL, PAOLO ROSSO, ANIS CHARFI, WAJDI ZAGHOUANI, BILAL GHANEM, JAVIER SÁNCHEZ-JUNQUERA *2019*
- Proceedings of the 11th Forum for Information Retrieval Evaluation (FIRE 2019).

UPV-28-UNITO at SemEval-2019 Task 7: Exploiting Post's Nesting and Syntax Information for Rumor Stance Classification

BILAL GHANEM, ALESSANDRA TERESA CIGNARELLA, CRISTINA BOSCO, PAOLO ROSSO, FRANCISCO MANUEL RANGEL PARDO *2019*
- Proceedings of the 13th International Workshop on Semantic Evaluation.

Bot and Gender Detection using Textual and Stylistic Information

ANASTASIA GIACHANOU, BILAL GHANEM *2019*
- In Working Notes of CLEF 2019 - Conference and Labs of the Evaluation Forum, CLEF '19.

UPV-UMA at CheckThat! Lab: Verifying Arabic Claims using a Cross Lingual Approach

Bilal Ghanem, Goran Glavaš, Anastasia Giachanou, Simone Paolo Ponzetto, Paolo Rosso, Francisco Rangel *2019*

- In Working Notes of CLEF 2019 - Conference and Labs of the Evaluation Forum, CLEF '19.

Online Hate Speech against Women: Automatic Identification of Misogyny and Sexism on Twitter

Simona Frenda, **Bilal Ghanem**, Manuel Montes-y-Gómez, Paolo Rosso *2019*

- Journal of Intelligent & Fuzzy Systems.

Stance Detection in Fake News A Combined Feature Representation

Bilal Ghanem, Paolo Rosso, Francisco Rangel *2018*

- Proceedings of the First Workshop on Fact Extraction and VERification (FEVER).

HYPLAG: Hybrid Arabic Text Plagiarism Detection System

Bilal Ghanem, Labib Arafeh, Paolo Rosso, Fernando Sánchez-Vega *2018*

- International Conference on Applications of Natural Language to Information Systems.

LDR at SemEval-2018 Task 3: A Low Dimensional Text Representation for Irony Detection

Bilal Ghanem, Francisco Rangel, Paolo Rosso *2018*

- Proceedings of The 12th International Workshop on Semantic Evaluation.

UPV-INAOE-Check That: Preliminary Approach for Checking Worthiness of Claims

Bilal Ghanem, Manuel Montes-y-Gómez, Francisco Rangel, Paolo Rosso *2018*

- In Working Notes of CLEF 2018 - Conference and Labs of the Evaluation Forum, CLEF '18.

UPV-INAOE-Autoritas-Check That: An Approach based on External Sources to Detect Claims Credibility

Bilal Ghanem, Manuel Montes-y-Gómez, Francisco Rangel, Paolo Rosso *2018*

- In Working Notes of CLEF 2018 - Conference and Labs of the Evaluation Forum, CLEF '18.

Exploration of Misogyny in Spanish and English Tweets

Simona Frenda, **Bilal Ghanem**, Manuel Montes-y-Gómez *2018*

- Third Workshop on Evaluation of Human Language Technologies for Iberian Languages (IberEval 2018).

Automatic Expansion of Lexicons for Multilingual Misogyny Detection

Simona Frenda, **Bilal Ghanem**, Estefanía Guzmán-Falcón, Manuel Montes-y-Gómez, Luis Villasenor-Pineda *2018*

- Proceedings of Sixth Evaluation Campaign of Natural Language Processing and Speech Tools for Italian.

ARAP: Arabic Author Profiling Project for Cyber-Security

Paolo Rosso, Francisco Rangel, Anis Charfi, Wajdi Zaghouani, **Bilal Ghanem**, Javier Sánchez-Junquera *2018*

- Sociedad Española para el Procesamiento del Lenguaje Natural.

Fact Checking: Detecting and Verifying Facts

Bilal Ghanem *2018*

- Proceedings of the Third Workshop on Evaluation of Human Language Technologies for Iberian Languages.

Full Publications

Google Scholar