

UNIVERSITÀ DEGLI STUDI DI MILANO

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[Hebatallah Atef Ibrrahim Mohamed]

CURRICULUM VITAE

INFORMAZIONI PERSONALI

COGNOME	MOHAMED
NOME	HEBATALLAH ATEF IBRAHIM
DATA DI NASCITA	[16, 12, 1986]

RESEARCH INTERESTS

Machine Learning, Deep Learning, Knowledge Graphs, Recommender Systems, Natural Language Processing

EDUCATION

Ph.D. in Computer Science, University of Roma Tre, Italy (2016 - 2019)

Thesis: "Deep Learning Techniques for Research-Paper Recommender Systems"

Supervisor: Prof. Alessandro Micarelli

M.Sc. in Computer Science, Arab Academy for Science and Technology, Egypt (2013 - 2015)

Thesis: "Prediction of O-glycosylation Sites in Proteins using Machine Learning".

GPA: 3.42.

Bachelor Degree, Faculty of Computers and Information, Helwan University, Egypt (2003 - 2007)

Grade: Very Good with the degree of honor (Ranked 7th).

RESEARCH GRANTS

Postdoctoral Fellow, ECLT, Ca' Foscari University of Venice, Italy (Nov 2020 - Oct 2022)

Project: MEMEX (<https://github.com/MEMEXProject>), an EU-Funded project

- Conducted research on Graph Neural Network (GNN) and clustering techniques for Knowledge Graph (KG) completion and link prediction.
- Contributed in an open-source ingestion tool for constructing a KG.
- Designed, implemented and deployed RESTful APIs on Azure cloud for information retrieval from the KG, by exploiting Natural Language Processing (NLP) and Deep Learning (DL) techniques.
- Published research results in peer-reviewed papers.

Supervisor: Prof. Marcello Pelillo

Postdoctoral Fellow, Free University of Bozen-Bolzano, Italy (Nov 2019 - Oct 2020)

Project: COckPiT

- Applied NLP and DL techniques for analyzing and classifying a large number of injury records. More specifically, developed a BERT question answering model for classifying injury reports in the

construction domain, and utilized an explainable model-agnostic technique for extracting possible hazards.

- Published the research results in a peer-reviewed paper.

Supervisor: Prof. Werner Nutt

INTERNSHIP

Ph.D. Visiting Researcher, ADAPT Centre, Trinity College Dublin, Ireland (Jan 2019 - March 2019)

- Developed and evaluated different pre-trained language models in a real-world recommendations as-a-service tool, for JabRef reference manager.
- Published the research results in a top conference in Recommender Systems (RecSys).

WORK EXPERIENCE

Technical Consultant, Huawei, Egypt (Oct 2015 - Sept 2016)

- Did system design and developed back-end solutions for Telecom Advanced Business Solutions (TABS) using J2EE frameworks.
- Developed back-end solutions using Java/J2EE frameworks.

Senior Software Engineer, Telepin Software, Egypt (July 2014 - Sept 2015)

- Did system design for a new client of Telepin Web Portal (a mobile payment platform).
- Developed front-end and back-end solutions using J2EE frameworks.

Technical Lead, HP Enterprise Services, Egypt and Germany (Jan 2011 - June 2014)

- Participated in the requirement gathering and design of the Electronic Point of Sale (EPOS) of Vodafone Germany, by working onsite in Düsseldorf with Vodafone and HP Enterprise Services.
- Led the development team in Cairo, consisting of 11 developers.

Java Developer, HP Enterprise Services, Egypt (Jan 2009 - Dec 2011)

- Did system design, and participated in the estimation of new functionalities.
- Developed solutions using Java.
- Used Test-Driven Development (TDD) to maintain code quality.
- Troubleshooted and fixed issues within SLA time.

CONFERENCES:

- **26th International Conference on Pattern Recognition (ICPR 2022)**, Online - Presented a paper in PatReCH workshop.
- **The 27th International Conference on Natural Language & Information Systems (NLDB 2022)**, Valencia, Spain - Presented a paper.
- **The 43rd Annual International Conference on Research and Development in Information Retrieval (SIGIR 2020)**, Online - Presented a paper in DeepNLP workshop.
- **The 13th ACM Conference on Recommender (RecSys 2019)**, Copenhagen, Denmark - Presented a paper.
- **The 12th ACM Conference on Recommender Systems (RecSys 2018)**, Vancouver, Canada - Presented a paper.
- **The 35th International Conference on Machine Learning (ICML 2018)**, Stockholm, Sweden - Student Travel Award.
- **The 25th Conference on User Modeling, Adaptation and Personalization (UMAP 2017)**, Bratislava, Slovakia - Participated in the Doctoral Consortium.
- **The 3rd International School on Big Data**, Bari, Italy - Attended the school.

PUBLICATIONS

- **Mohamed, Hebatallah A.**, et al. "Locality-aware subgraph for inductive link prediction in knowledge graphs". *Pattern Recognition Letters* [Under Review].
- **Mohamed, Hebatallah A.**, Sebastiano Vascon, Feliks Hibraj, Stuart James, Diego Pilutti, Alessio Del Bue, and Marcello Pelillo. "Geolocation of Cultural Heritage using Multi-View Knowledge Graph Embedding." *3rd International Workshop on Pattern Recognition for Cultural Heritage (PatReCH 2022)*. [To appear in LNCS]
- **Mohamed Hassan, Hebatallah A.**, Elisa Marengo, and Werner Nutt. "A BERT-Based Model for Question Answering on Construction Incident Reports." *International Conference on Applications of Natural Language to Information Systems*. Springer, Cham, 2022.
- **Mohamed, Hebatallah A.**, Giuseppe Sansonetti, and Alessandro Micarelli. "Tag-Aware Document Representation for Research Paper Recommendation." *SIGIR 2020 Workshop on Deep Natural Language Processing for Search and Recommendation (DeepNLP'20)*.
- **Hassan, Hebatallah A. Mohamed**, Giuseppe Sansonetti, Fabio Gasparetti, Alessandro Micarelli, and Joeran Beel. "Bert, elmo, use and infersent sentence encoders: The panacea for research-paper recommendation?." In *RecSys (Late-Breaking Results)*, pp. 6-10. 2019.
- **Hassan, Hebatallah A. Mohamed**, Giuseppe Sansonetti, Fabio Gasparetti, and Alessandro Micarelli. "Semantic-based tag recommendation in scientific bookmarking systems." In *Proceedings of the 12th ACM Conference on Recommender Systems*, pp. 465-469. 2018.
- **Hassan, Hebatallah A. Mohamed**. "Personalized research paper recommendation using deep learning." In *Proceedings of the 25th conference on user modeling, adaptation and personalization*, pp. 327-330. 2017.
- **Hassan, Hebatallah**, Amr Badr, and M. B. Abdelhalim. "Prediction of O-glycosylation sites using random forest and GA-tuned PSO technique." *Bioinformatics and Biology insights* 9 (2015): BBI-S26864.
- **Hassan, H.**, M. B. Abdelhalim, and Amr Badr. "Prediction of O-glycosylation sites in proteins using PSO-based data balancing and random forest." *Life Sci J* 11, no. 12 (2014): 1019-25.

TECHNICAL SKILLS

- **Programming languages:** Python (NumPy, Pandas, Scikit-learn, Flask, Plotly, PyTorch, Tensorflow, Keras), Java (J2SEE and J2EE), JavaScript.
- **Databases:** MySQL, MongoDB, Cypher (Neo4J).
- **Tools:** Apache Solr, Microsoft Azure, Docker.

CERTIFICATIONS

- Oracle Certified Professional, Java EE 5 Web Component Developer.
- Sun Certified Programmer for the Java 2 Platform, Standard Edition.
- Java Diploma - A scholarship awarded by the Information Technology Institute (ITI), affiliated by the Egyptian Ministry of Communications and Information Technology (Sept 2007 to June 2008).

ACTIVITES

- Peer-reviewer for international conferences: IJCNN, S+SSPR, CVPR, AAAI
- Editor of Recommender Systems community website: <https://recommender-systems.com/>.

LANGUAGES

- **Arabic** - Native proficiency
- **English** - Full professional proficiency
- **Italian** - Limited working proficiency (Certified B1)

Data

23/10/2022

Luogo

Venezia, Italia