MERYEM M'HAMDI

PhD in Computer Science @ USC/ISI

@ meryemmhamdi1@gmail.com ✉ 1129 West 27th Street, 90007, Los Angeles, USA 📞 (323)-620-6836
🔗 https://meryemmhamdi1.github.io 🔗 linkedin.com/in/meryem-m-hamdi-69964980/ 🔗 github.com/meryemmhamdi1

EXPERIENCE

Data & Applied Scientist Intern
Bing Multimedia, Microsoft

📅 May 2023 - Aug 2023   📍 Redmond, WA, USA

- Research on improving the ranker in Prism Feed recommendation system by proposing a deep-learning-based model to recommend candidate items to different types of users managed by **Shikhar Sharma** and **Andrew McNamara**.

Research Scientist Intern
NLP Group, Adobe Research

📅 May 2022 - Aug 2022   📍 San Jose, CA, USA

- Research on multilingual semantic search using meta transfer learning and knowledge distillation mentored by Dr. **David Seunghyun Yoon**, **Trung Bui**, and **Franck Dernoncourt**. (Approved for Patent).

Research Assistant
Information Sciences Institute (ISI) - University of Southern California (USC)

📅 Jan 2019 – Present   📍 Marina Del Rey, CA, USA

- Research on cross-lingual transfer learning to downstream applications and universal multilingual representations, supervised by Prof. **Jonathan May**.

Natural Language Processing (NLP) Research Intern
NLP Group, Adobe Research

📅 May 2020 - Nov 2020   📍 San Jose, CA, USA

- Research on cross-lingual natural language understanding and question answering using meta transfer learning, mentored by Dr. **Doo Soon Kim**, **Franck Dernoncourt**, and **Trung Bui**.

Data Science Intern Master Thesis Student
Swisscom AG, Ecole Polytechnique Fédérale de Lausanne (EPFL) Labs

📅 Feb 2018 – Sep 2018   📍 Lausanne, Switzerland

- Creation of end-to-end library for the performance evaluation of multilingual embeddings across text classification, unsupervised event detection, and churn detection supervised by Dr. **Claudiu Musat**.

NLP Intern
Speech and Sound Group, Sony EuTEC

📅 Aug 2017 – Jan 2018   📍 Stuttgart, Germany

- Building Seq2Seq (CNN/BiLSTM) model using NNABLA for intent prediction and slot filling, supervised by Mr. **Mark Blaxall**.

EDUCATION

PhD in Computer Science
USC, USA

📅 Jan 2019 – Jan 2024 (Expected)

Courses: Representation Learning, Natural Language Dialogue Systems, Representation Learning for NLP.
Women in Engineering (WiE) mentor.

M.Sc. in Computer Science
EPFL, Switzerland

📅 Sep 2015 – Sep 2018

Specialization: *Data Analytics*.

Honors B.Sc. in Computer Science
Al Akhawayn University in Ifrane, Morocco

📅 Aug 2011 – Jun 2015

GPA: **3.91/4**
Minors: *Business Administration & Mathematics*
Tuition merit-based scholarship
Leadership Development Institute Graduate

PUBLICATIONS/ TALKS

M. M'hamdi, X. Ren, J. May. **Cross-Lingual Continual Learning.** Proc. ACL 2023.

M. M'hamdi, D. S. Kim, F. Dernoncourt, T. Bui, X. Ren and J. May. **X-METRA-ADA: Cross-lingual Meta-Transfer Learning Adaptation to Natural Language Understanding and Question Answering**. Proc. NAACL 2021. (Approved for *Patent*)

M. M'hamdi and J. May. **TransMAXIE: A Benchmark for Transfer Evaluation of Cross-Lingual Alignment of Transformer Embeddings for Information Extraction.** ISI GSS 2020 Talk.

M. M'hamdi, M. Freedman and J. May. **Contextualized Cross-Lingual Event Trigger Extraction with Minimal Resources.** Proc. CONLL 2019.

C. Abbet, M. M'hamdi, A. Giannakopoulos, R. West, A. Hossmann, M. Baeriswyl and C. Musat. **Churn Intent Detection in Multilingual Chatbot Conversations and Social Media.** Proc. CONLL 2018.

RESEARCH PROJECTS

Cross-Lingual Information Extraction with Minimal Resources
NLP Group, ISI. PI: Marjorie Freedman, Elizabeth Boschee

📅 Jan 2019 - Present

- Generated a contextualized cross-lingual event extraction system using transfer learning with BERT.
- Achieved a better performance in event trigger detection using a language-independent approach compared to linguistic baselines.

Analysis of the Impact of Linguistic Processing on Large Scale Semantic Similarity
Artificial Intelligence (AI) Lab, EPFL. Prof. Martin Rajman

📅 Feb 2017 – Jun 2017

- Implementation of a clean, debuggable and efficient NLP pipeline for linguistic pre-processing including an FSA based lexical analysis, a morphological analyzer using FST, and a syntactic analyzer using CYK.

Fine Grained Emotion Recognition in Human Dialogs using Hybrid Methodologies
Human Computer Interaction (HCI) Group, EPFL. Prof. Pearl Pu

📅 Aug 2016 – Jan 2017

- Implementing a hybrid fine-grained emotion recognition system using syntactic analysis, semantic similarity and semi-supervised machine learning with domain adaptation.
- Human validation of the emotion recognition methodology.

Estimation and Visualization of Canton-Level Moods using Hybrid Fine-Grained Emotion Analysis Methodologies
Distributed Information Systems (DIS) Lab, EPFL. Dr. Michel Catasta

📅 Nov 2016 – Jan 2016

- Building a platform for analyzing 12M geolocated tweets.
- Creating interactive maps using D3.js library for visualizing distribution of emotions per canton and time interval.

SOCIAL VOLUNTEERING

Volunteer in social center for elderly people
Foundation Mohamed V for Solidarity

📅 Jun 2014 – Aug 2014

- Helping in day to day activities including feeding, nursing, entertainment and psychological therapy.

Tutor and Mentor in an elementary public school
The George Washington Student Association

📅 Sep 2013 – Dec 2013

- Helping children with learning difficulties with their homework.

PROGRAMMING LANGUAGES & SKILLS

Python · Java · SQL · C++ · Matlab · R · C# · Git
Natural Language Processing · Machine Learning · Data Mining
Deep Learning · Pytorch · Tensorflow · Transformers

EXTRACURRICULAR ACTIVITIES

NL Seminar Organizer
ISI/USC

📅 Apr 2022 – Jan 2023

- Organizing seminars hosting top NLP researchers.

Teaching Assistant
University of Southern California

📅 Aug 2020 – Dec 2020

- **Advanced NLP (CSCI-662)** with Prof. Jonathan May: Designing and grading homework and projects and holding office hours.

SoCalNLP19 Student Co-Chair
University of Southern California

📅 Jan 2019 – Sep 2019

- Co-organizing 2nd Symposium in NLP including setting up submission system and peer-reviews.

Teaching Assistant
Ecole Polytechnique Fédérale de Lausanne

📅 Sep 2016 – Jun 2017

- **Software Engineering (CS-305)**: Grading homework and exams and coaching teams developing Android applications.
- **Introduction to database systems (CS-322)**: Providing lab assistance.

RECENT REFEREES

Prof. Jonathan May
@ University of Southern California
✉ jonmay@isi.edu

Dr. Trung Bui
@ Adobe Research, San Jose
✉ bui@adobe.com

Dr. Franck Dernoncourt
@ Adobe Research, San Jose
✉ franck.dernoncourt@gmail.com

Dr. Claudiu Musat
@ Swisscom AG, EPFL Digital Lab
✉ Claudiu.Musat@swisscom.com

LANGUAGES

English
French
Arabic
Spanish