MERYEM M'HAMDI

PhD in Computer Science @ USC/ISI

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github.com/meryemmhamdi1

EXPERIENCE

NLP Summer Research Intern
Adobe Research

📅 May 2020 - Aug 2020   📍 San Jose, USA

- Research on cross-lingual natural language understanding and question answering using meta transfer learning.

Research Assistant
Information Sciences Institute - University of Southern California

📅 Jan 2019 – Present   📍 Marina Del Rey, USA

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

Data Science Intern Master Thesis Student
Swisscom AG, EPFL Digital Lab

📅 Feb 2018 – Sep 2018   📍 Lausanne, Switzerland

- Creation of end-to-end library for the performance evaluation of different multilingual and monolingual embeddings across different text neural classification architectures.
- Extending churn detection to more languages using multilingual embeddings.
- Proposing new framework for cross-lingual unsupervised event detection using multilingual embeddings.

Natural Language Processing Intern
Sony EuTEC, Speech and Sound Group

📅 Aug 2017 – Jan 2018   📍 Stuttgart, Germany

- Implementation and performance evaluation of CNN model using NNABLA for conversational intent prediction.
- Implementation and performance evaluation of Seq2Seq model based on RNN for jointly learning intent prediction and slot filling in conversational agents.

SKILL SETS

EDUCATION

PhD in Computer Science
University of Southern California, USA

📅 Jan 2019 – Jan 2024 (Expected)

Relevant Courses: Advanced Algorithms, Representation Learning, Natural Language Dialogue Systems, Representation Learning for NLP

M.Sc. in Computer Science
Ecole Polytechnique Fédérale de Lausanne, Switzerland

📅 Sep 2015 – Sep 2018

Specialization: **Data Analytics**
Thesis title: **"Creation and evaluation of multilingual embeddings for downstream semantic tasks"**

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

📅 Aug 2011 – Jun 2015

GPA: **3.91/4** Minor: **Business Administration & Mathematics**
Tuition-based merit-based scholarship
Leadership Development Institute Graduate
Capstone Project: **"A cloud-based solution for an e-health system adapted to Moroccan patients"**

PUBLICATIONS

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

M. M'hamdi, R. West, A. Hossmann, M. Baeriswyl and C. Musat. **Expanding Text Classification Toolbox with Cross-lingual Embeddings** CoRR, abs/1903.09878

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

PROGRAMMING LANGUAGES

Python | Java | SQL | C++ | Scala
Matlab | R | C# | Golang | Javascript

RESEARCH PROJECTS

Contextualized Cross-Lingual Event Trigger Extraction with Minimal Resources
Natural Language Processing Group, Information Sciences Institute

📅 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 Laboratory, EPFL

📅 Feb 2017 – Jun 2017

- Implementation of a clean, debuggable and efficient NLP pipeline for linguistic pre-processing:
  - FSA based lexical analysis.
  - Morphological analyzer using FST.
  - Syntactic analyzer using CYK.
  - Semantic similarity computation using expectation minimization.

Fine Grained Emotion Recognition in Human Dialogs using Hybrid Methodologies
Human Computer Interaction Group, EPFL

📅 Aug 2016 – Jan 2016

- Implementing a hybrid fine-grained emotion recognition system using syntactic analysis and semantic similarity using Word2Vec and semi-supervised machine learning with domain adaptation.
- Design of a crowdsourcing experiment for the human validation of the emotion recognition methodology.

Estimation and Visualization of Canton-Level Moods using Hybrid Fine-Grained Emotion Analysis Methodologies
Distributed Information Systems Laboratory, EPFL

📅 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.

EXTRACURRICULAR ACTIVITIES

Teaching Assistant
University of Southern California

📅 Aug 2020 – Present

- **Advanced Natural Language Processing (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. Claudiu Musat
@ Swisscom AG, EPFL Digital Lab
✉ Claudiu.Musat@swisscom.com

Prof. Robert West
@ Ecole Polytechnique Fédérale de Lausanne
✉ robert.west@epfl.ch

Mr. Mark Blaxall
@ Sony Europe Limited Deutschland Stuttgart Technology Center
✉ Mark.Blaxall@eu.sony.com

LANGUAGES

English	●●●●●
French	●●●●●
Arabic	●●●●●
Spanish	●●○○○