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SUMMARY

Research interest: Language representation, Multi-task learning, Computational Social Science, News Consumption

NLP: LM, Pretraining, QA, Summarization **DL:** RNNs, Attention **Frameworks:** Pytorch **Programing:** Python, SQL

ML: Linear Models, SVM, Random Forests, PCA, Clustering, LDA.

Other: Mentoring Data Scientists/ Research Interns, Project Scoping and management, Recruiting

EDUCATION

Stanford University - Graduate coursework in Natural Language Processing with Deep Learning (CS224n), 2017

University of Maryland College Park - Masters in Information Management, May 2012

Damascus University - B.E. Computer Science, Focus: Artificial Intelligence, July 2007

HONORS Fulbright Scholarship, U.S. Department of State 2010.

PUBLICATIONS

Khouja, J. Stance Prediction and Claim Verification: An Arabic Perspective. Proceedings of the Third Workshop on Fact Extraction and VERification (FEVER) workshop at ACL 2020

Social Media for Political Change: The Activists, Governments and Firms Triangle of Powers During the Arab Movement. Handbook of Research on Political Activism in the Information Age (pages 26-36). IGI Global 2015

Knowledge and Theme Discovery across Very Large Biological Data Sets Using Distributed Queries: A Prototype Combining Unstructured and Structured Data. PLOS 2013

Mr. LDA: A Flexible Large Scale Topic Modeling Package using Variational Inference in MapReduce. ACM International Conference on World Wide Web, 2012.

HIGHLIGHTED EXPERIENCE

SR. PRINCIPAL ML SCIENTIST, SAGE INTACCT

APR 2020 - Present

Leading ML modeling of the Intelligent Time product. Revamped supervised models which improved recall and precision. Set up process for building the team and ML foundations to build AI products.

SENIOR APPLIED SCIENTIST, MICROSOFT

May 2018 – Sep 2019

Contributed to scaling up Language Model distributed training to tens of billions of words and explored the use of sub-word representations (PBE, Wordpiece) in speech services.

PRINCIPAL DATA SCIENTIST, SALESFORCE

May 2016 – Feb 2018

Drove the team's NLP DL foundation and automated business processes by building text classification models for the customer support processes.

SENIOR DATA SCIENTIST, SALESFORCE

September 2015 – April 2016

Built models for churn prediction and customer segmentation using various classification, regression and clustering methods. Developed reusable machine learning pipeline and feature engineering libraries.

DATA SCIENCE LEAD, CRITTERCISM

Jul 2014 – Nov 2014

Applied clustering techniques and text matching for cardinality reduction.

Built internet facing analytics portal for tracking live mobile performance metrics worldwide.

Built AWS on demand analytics infrastructure using S3 and EMR.

DATA ANALYTICS LEAD, IREX

Nov 2013 – Jun 2014

Developed and implemented data driven practices and programs for violations documentation.

Managed and oversaw the building of the technology and the data team from scratch.

BIG DATA SPECIALIST, ORACLE

Mar 2013 – Oct 2013

Developed machine learning proof of concepts in the public sector using technologies including Hadoop, Hive, Pig, R Enterprise, Mahout and other proprietary and open source tools.

DATA SCIENTIST, ORACLE

Jun 2012 – Aug 2012

Was the Lead Data Scientist in the Oracle/NCI partnership project which resulted in winning the "2012 Best Government Big Data Solution" Award.

Developed MapReduce programs in Java and Python for analyzing simulated Gene data of 900 million patients.

Assisted in building a 9-node Hadoop (CDH) cluster.

GRADUATE RESEARCH ASSISTANT, UMIACS

Oct 2011 – May 2012

Evaluated large scalable distributed Topic Modeling algorithm (LDA) and applied them for unsupervised lexicon expansion.

Developed an Arabic version of the Word Count tool for sentiment analysis and honor dictionary validation.

PROGRAM OFFICER – M&E, UNITED NATIONS

Aug 2009 – Aug 2010

Developed and implemented a comprehensive M&E plan for a \$6 Million grant by The Global Fund Program (GFATM).

Oversaw the design and implementation of the health management information system.

TECHNOLOGY CONSULTANT, UNITED NATIONS

Aug 2008 - Mar 2009

Conducted comprehensive assessment of the existing IT infrastructure and capacity for the United Nations (UNDP) project on Aid Effectiveness and produced a full analysis report to the Minister of state planning commission.

CERTIFICATION

M&E for UN programs, United Nations, Geneva 2009.

SCJP (Sun Certified Java Programmer), Sun 2008.