Eric (Ehsan) Qasemi

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Education

PhD. in Computer Science   Cont.
Univ. of Southern California

MSc. in Comp. Science   2018
Univ. of Wisconsin-Madison

BSC. in Electrical Engr.   2015
University of Tehran

Skills

PL: Python, C/C++, Java, Scala, Matlab, Julia, Cuda

ML: Torch, Tensorflow

HPC: Apache (Spark, Arrow, etc.)

DB: Ray, SQL, Redis, ElasticSearch, MongoDB, Stardog

Web: React, JS, CSS, HTML, Flask

Honors

Research Scholarship Recipient from University of Southern California (2018)

1'st place in National Digital System Design Competition, HW/SW Co-design League, Iran (2013)

Voluntary

President at Persian Student's Society of UW Madison (PSS)   2015-2017

Board Member of the first Iranian film festival (WIFF),   March '17

Research Experience

Preconditioned Inference in Common Sense   Los Angeles, CA   2019-Cont.

PInKS: Minimally supervised solutions for preconditions inference of common sense knowledge(huggingface, torch, Snokel)

CoreQuisite/PaCo: Circumstantial preconditions of common sense knowledge (Spacy, NLTK, huggingface, torch)

CSKG: Consolidate resources of commonsense knowledge into an integrated commonsense knowledge graph (Spacy, NLTK, torch)

Knowledge Graph Embedding for Table Parsing   Los Angeles, CA Summer '19

Representational capacity of graph embedding for ontology mapping in Knowledge Graphs (DGL, torch, SPARQL)

Discovery of Autism Spectrum Disorder (ASD)   Madison, WI   2016-'18

Research and development in big heterogeneous spatiotemporal data (Python, tensorflow, keras, scikit)

Designed deep LSTM model for ASD prediction (Python, tensorflow, keras, scikit)

Work Experience and Internships

Hybrid AI Research Intern   Bosch LLC., pittsburgh, PA   Summer'21

Study on neuro-symbolic approaches for traffic monitoring and traffic reasoning (Python, Torch, Stardog)

Research Intern   Information Sciences Institute, Marina Del Ray, CA   Summer'18

Meta-Learning pipeline recommender system for automated machine learning in high dim. structured datasets (Python, tensorflow, keras, torch, MongoDB)

Software/Hardware Full-Time Engineer   IWIN Co., Tehran, Iran   2014, '15

SoC Hardware Security Module (HSM) for banking applications (Scala, Java, C, RocksDB)

10x improvement on throughput of AES, 9x improvement on throughput of key manager, and 4x improvement on throughput of RSA

Research Intern   Pardis Co, Tehran, Iran   Summer'16

Designed an Embedded low cost server for real-time media encryption (C, Assembly, Lua)

Selected Publication

NLP   [In preparation for NAACL2022] Qasemi E, Ilievski F, Chen M, Szekely P. PaCo: Preconditions Attributed to Commonsense Knowledge.

NLP   [In preparation for NAACL2022] Qasemi E, Khanna P, Ning Q, Chen M. PInKS: Preconditioned Inference with Weak Supervision

NLP   Ilievski F, Szekely P, Cheng J, Zhang F, Qasemi E. Consolidating Commonsense Knowledge. arXiv preprint arXiv:2006.06114. 2020 Jun 10.

NLP   Qasemi E, Ilievski F, Chen M, Szekely P. CoreQuisite: Contextual Preconditions of Commonsense Knowledge. WeCNLP 2021

NLP   Thawani A, Hu M, Hu E, Zafar H, Divvala NT, Singh A, Qasemi E, Szekely PA, Pujara J. Entity Linking to Knowledge Graphs to Infer Column Types and Properties. InSemTab@ISWC 2019.

ML   Yu F, Thayer M, Qasemi E, Zhu K, Assadi A. Deep Learning Features in Atmospheric Chemistry: Prediction of Cancer Morbidity Due to Air Pollution. CSCI 2017. IEEE.

ML   E. Qasemi, S. Stan, K. Yao, R. Shao, J. Liu, M. Liang, L. J. Ferrer, P. Szekely, "DSBox: Data Scientist in a Box", GSS 2019