Ehsan (Eric) Qasemi

Website: ehsanqasemi.com   qasemi@usc.edu qasemi.ehs@gmail.com

---

Research Interest

Commonsense Reasoning	Natural Language Processing	Artificial Intelligence

Education

Ph.D. in Computer Science	University of Southern California (2018-)
M.Sc. in Computer Science	University of Wisconsin-Madison (2015-18)
B.Sc. in Electrical Engineering	University of Tehran (2010-15)

Honors & Awards

- 4-Year Research **Scholarship Recipient** from University of Southern California — 2018-2022
- 1'st place in Hardware-Software Co-design Competition, CADS — 2013
- 1'st place in 2D Soccer Simulation Competition, Iran — 2008
- Ranked as 57 among ≈500,000 students in National Universities Entrance Exam, Iran — 2010

Publication

1. [reviewed for EMNLP2023 with Meta-Score of 4.5/5] **Qasemi E**, Ilievski F, Chen M, Szekely P. "PaCo: Preconditions Attributed to Commonsense Knowledge".
2. [reviewed for AACL2022 with Avg. Score of 3.8/5] **Qasemi E**, Khanna P, Ning Q, Chen M. "PInKS: Preconditioned Inference with Weak Supervision".
3. [Under Preparation] **Qasemi E**, Maina-Kilaa A R, Dash D, Alsaggaf K, Chen M. "Privateer: Preconditioned Visual Inference with Weak Supervision".
4. [Under Preparation] **Qasemi E**, Mehdi A ul, Francis J, Oltramari A. "APRICOT: Weak Supervision for Visual Commonsense for Traffic Monitoring".
5. [Under Preparation] Singh S, **Qasemi E**, Chen M. "VIPHY: Probing "Visible" Physical Commonsense Knowledge".
6. **Qasemi E**, Oltramari A. "Intelligent Traffic Monitoring with Hybrid AI", Artificial Intelligence for Autonomous Driving workshop at IJCAI, 2022.
7. **Qasemi E**, Ilievski F, Chen M, Szekely P. "CoreQuisite: Circumstantial Preconditions of Commonsense Knowledge". West Coast NLP, 2021.
8. Ilievski F, Szekely P, Cheng J, Zhang F, **Qasemi E**. "Consolidating Commonsense Knowledge". arXiv preprint arXiv:2006.06114. 2020 Jun 10.
9. 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 (pp. 25-32).
10. **Qasemi E**, Kezar L, Pujara J, Szekely P. Evaluating Machine Common Sense via Cloze Testing. arXiv preprint arXiv:2201.07902.
11. **Qasemi E**, Stan S, Yao K, Shao R, Liu J, Liang M, Ferrer LJ, Szekely P, "DSBox: Data Scientist in a Box", ISI Graduate Student Symposium (GSS '19), Marina Del Rey, California, USA.
12. Yu F, Thayer M, **Qasemi E**, Zhu K, Assadi A. "Deep Learning Features in Atmospheric Chemistry: Prediction of Cancer Morbidity Due to Air Pollution". 2017 International Conference on Computational Science and Computational Intelligence (CSCI) 2017 Dec 14 (pp. 1764-1766). IEEE.
13. Yuchen S, **Qasemi E**, Ardalan A, Gao H, Assadi AH. "Deep Learning Art History from Data: Baroque Intellectual Influence on the Romantic Era Painting". 2017 International Conference on Computational Science and Computational Intelligence (CSCI) 2017 Dec 14 (pp. 391-393). IEEE.
14. Han P, **Qasemi E**, Ardalan A, Gao H, Assadi AH. "Deep Learning Empirical Topology for Classical Music Style Decision Making". 2017 International Conference on Computational Science and Computational Intelligence (CSCI) 2017 Dec 14 (pp. 394-395). IEEE.
15. Biglari M, **Qasemi E**, Pourmohseni B. "Maestro: A high performance AES encryption/decryption system". InThe 17th CSI International Symposium on Computer Architecture & Digital Systems (CADS 2013) 2013 Oct 30 (pp. 145-148). IEEE.

16. **Qasemi E**, Samadi A, Shadmehr MH, Azizian B, Mozaffari S, Shirian A, Alizadeh B. "Highly scalable, shared-memory, Monte-Carlo tree search based Blokus Duo Solver on FPGA". In2014 International Conference on Field-Programmable Technology (FPT) 2014 Dec 10 (pp. 370-373). IEEE.

17. Pasandi G, **Qasemi E**, Fakhraie SM. "A new low-leakage T-Gate based 8T SRAM cell with improved write-ability in 90nm CMOS technology". In2014 22nd Iranian Conference on Electrical Engineering (ICEE) 2014 May 20 (pp. 382-386). IEEE.

18. Pasandi G, Fakhraie SM, **Qasemi E**. "A New Tri-State Based Static Random Access Memory (SRAM) with Improved Write-Ability and Read Stability". In2014 JCSE Vol. 10, No.2 & 4, Summer 2012 & Winter 2013

Research and Industry Experience

Oracle · Los Angeles, USA
Research Intern Supervised by Onur Kocberber · *Fall 2022*
Intelligent Automation in Heatwave infrastructure

Robert Bosch LLc. · Pittsburgh, USA
Hybrid AI Intern Supervised by Alessandro Oltramari · *Summer 2022*
Autonomous Driving and Traffic Monitoring with Hybrid AI

Center on Knowledge Graphs · Information Sciences Institute, USC
Research Assistant Co-supervised by Muhao Chen & Pedro Szekely · *Jun 2018 – present*
Preconditioned Inference on Machine Commonsense Knowledge

Robert Bosch LLc. · Pittsburgh, USA
Hybrid AI Intern Supervised by Alessandro Oltramari · *Summer 2021*
Intelligent Traffic Monitoring with Hybrid AI

Persepolis Research Group · University of Wisconsin-Madison
Research Assistant Supervised by Amir H. Assadi · *2016-18*
Applications of Deep Learning for discovery of Autism Spectrum Disorder (ASD)

IWIN Co. · Tehran, IR
Embedded Designer/Programmer/Verification Engineer · *2014-15*
Hardware Security Module (HSM) for secure finantial transactions

Design, Verification, and Debug of Embedded Systems Lab · University of Tehran
Research Assistant Supervised by Bijan Alizadeh · *2012-14*
Hardware Design Artificial intelligence

System Intelligence Lab · University of Tehran
Research Assistant Supervised by Seyed Mahdi Fakhrai · *Summer 2013*
Artificial intelligence applications in Sub-threshold Memory Design

Teaching and Mentoring

Teaching:

- [U-Tehran] ICEEP: Embedded Linux Workshop · Summer 2014
- [UW-Madison] LCA 601,563: Advanced Persian Language · Fall '16, Spring '17

Mentoring:

- [HMC] Amani Maina-Kilaas, Undergraduate Student, Computer Science (NSF REU program) · Summer 2022
- [IIT] Tanay Dixit, Undergraduate Student, Computer Science (NSF REU program) · Summer 2022
- [IIT] Devadutta Dash, Undergraduate Student, Computer Science (IUSSTF Viterbi program) · Summer 2022
- [UW-M] Khalid Alsaggaf, Undergraduate Student, Computer Science (KAUST-Viterbi Exchange) · Summer 2022
- [USC] Piyush Khanna, Undergraduate Student, Computer Science · Summer 2021
- [USC] Shikhar Singha, Master Student, Computer Science · 2021, 2022
- [NYU] Zijan Jin, Master Student, Computer Science · Fall 2021

Teaching Assistant:

- [USC] CSCI 544: Applied Natural Language Processing (R. Artstein, M. Rostami)   Fall 2022
- [USC] CSCI 544: Applied Natural Language Processing (M. Chen, R. Artstein)   Spring 2022
- [UW-Madison] CS 354: Machine Organization and Programming (J. Skrentny)   Spring 2018
- [UW-Madison] CS 552: Introduction to Computer Architecture (Y. H. Hu)   Fall 2016
- [UW-Madison] CS 352: Digital System Fundamentals (K. Morrow, X. Zhang)   Spring 2016
- [UW-Madison] CS 252: Introduction to Computer Engineering (K. Morrow, M. Morrow)   Spring 2016
- [UW-Madison] ECE 344: Electrical Circuits (L. Shohet)   Summer 2017
- [U-Tehran] ECE 615: Electronic System Level Design (B. Alizadeh)   Spring 2015
- [U-Tehran] ECE 367: Digital Logic Design lab (Z. Navabi)   Summer '14 '13, Fall '14 '13
- [U-Tehran] ECE 532: Object-Oriented Simulation of Electronic Systems (Z. Navabi)   Spring '14 '13
- [U-Tehran] ECE 642: FPGA Base Embedded System Design (B. Alizadeh)   Fall '14 '13

Professional Services

PC Member:

- Artificial Intelligence for Autonomous Driving (AI4AD), IJCAI 2022 Workshop   Spring 2022
- International Semantic Web Conference (ISWC 2022) Research Track   Summer 2022
- 31st ACM International Conference on Information and Knowledge Management (CIKM 2022) Demo Summer 2022

Journal/Conference Reviewer:

- ACL Rolling Review (ARR)   Summer 2022
- Conference on Empirical Methods in Natural Language Processing (EMNLP)   Summer 2022
- ACL Rolling Review (ARR)   Spring 2022
- The 29th International Conference on Computational Linguistics (COLING 2022)   Summer 2022
- ACL Rolling Review (ARR)   Fall 2021
- TheWebConf 2019)   Dec 2018

Voluntary Activity

- President of Persian Student's Society of UW-Madison (PSS)   2015-2017
- Board Member of the first Iranian film festival (WIFF) at UW-Madison   March '17