AFRA FEYZA AKYUREK

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EDUCATION

Ph.D. in Computer Science   Sept 2019 - Present
Department of Computer Science, Boston University, Boston.

M.Sc. in Statistics and Data Science   Sept 2018 - May 2019
Department of Statistics and Data Science, Carnegie Mellon University, Pittsburgh.

B.Sc. in Industrial Engineering, Double Major in Computer Engineering   Sept 2013 - June 2018
Full-Merit Scholarship, Ranked 3rd in Computer Engineering
Koc University, Istanbul.

INTERESTS

Natural Language Processing, Continual Few-Shot Learning for Vision and Language, Low-Resource Machine Translation, Machine Learning Applications in Journalism

PUBLICATIONS

Afra Feyza Akyürek, Ekin Akyürek, Derry Wijaya and Jacob Andreas. Subspace Regularizers for Few-Shot Class Incremental Learning. *Under Review.*   2021

Garry Kuwanto*, Afra Feyza Akyürek*, Siyang Li*, Isidora Chara Tourni* and Derry Wijaya. Low-Resource Machine Translation for Low-Resource Languages: Leveraging Comparable Data, Code-Switching and Compute Resources. *Under Review.*   2021

Ekin Akyürek, Afra Feyza Akyürek and Jacob Andreas. Learning to Recombine and Resample Data for Compositional Generalization. In Proceedings of ICLR 2021.   2021

Afra Feyza Akyürek, Lei Guo, Randa Elanwar, Margrit Betke, Prakash Ishwar and Derry T. Wijaya. Multi-label and Multilingual News Framing Analysis. In Proceedings of ACL 2020.   2020

RESEARCH AND INTERNSHIP EXPERIENCE

Machine Learning Research Intern   June 2021 - August 2021
Apple Inc.

· Measuring and tackling gender bias in large scale pretrained language models.

Research Assistant   September 2019 - Present
Department of Computer Science, Boston University

· Cross-lingual and low-resource-focused NLP research under the supervision of Prof. Derry Wijaya with applications to journalism.
· Developed of a low-resource machine translation tool for the Learning with Less Labels (LwLL) project by DARPA.
· NLP applications in journalism.

Machine Learning Intern   May 2019 - July 2019
Novartis Pharmaceutical Company, New Jersey, US

· Focusing on statistical analysis of CAR-T therapy, a highly promising personalized immuno-therapy for cancer under the supervision of Kapildeb Sen and Joel Greenhouse. I created an explainable predictive model for treatment efficacy, revealed outstanding findings and communicated them to clinical experts.

Teaching Assistant   September 2018 - May 2019
Department of Statistics and Data Science, Carnegie Mellon

· 36-315 Graphics and Visualization
· 36-350 Statistical Computing

Undergraduate Research Assistant   February 2017 - December 2017
Department of Industrial Engineering, Koc University

· Statistical assessments of hand hygiene compliance and antibiotic use in Koc University Hospital.
· Deploying R and ElasticSearch for data management, and Shiny to build a web application for easy surveillance.

Operations Research Intern   June 2017 - August 2017
PlusOneMinusOne (now Arute Solutions), Istanbul

· Using Java, I've implemented meta-heuristic methods including genetic algorithm and simulated annealing to address the optimization problem of cash management across ATM networks.

Business Analytics Intern   June 2016-December 2016
LC Waikiki, Istanbul

· Completing two tasks: dispersion analysis of the goods in the logistics center using R and determining the optimum vehicle load factors for all routes throughout the logistics network with CPLEX Optimizer.

HONORS AND AWARDS

Ranked 3rd in Computer Engineering, completed the degree in one year, Koc University, Istanbul   2018

Best Senior Design Computer Eng., Self-Driving Cars with Deep Reinforcement Learning   2018

Vehbi Koc Scholar Award, Outstanding Academic Achievement, Koc University   Sept 2013 - June 2018

Arsel Scholar Award, ranked 1st in admittance to the program, Koc University   Sept 2013 - June 2018

Turkish Premiership Scholar, five year funding for undergraduate studies, Istanbul   2013 - 2018

Society of Women Engineers Future Leader, Chicago USA   2015

31st Place in National University Entrance Exam amid 2 million takers in Turkey   2013

TALKS

BU Artificial Intelligence Research Seminars on Multilingual News Framing, Boston   Jan 2020

UNESCO International Symposium on Girls' Education in STEM, Bangkok   August 2017

EXTRA-CURRICULAR AND LEADERSHIP ACTIVITIES

Graduate Mentor AI Research Workshop for Undergraduate Women in Computing, Boston University   2020

Regional Finalist at HULT Prize $1 million Social Entrepreneurship Competition, London   March 2017

Regional Finalist at HULT Prize $1 million Social Entrepreneurship Competition, Dubai   March 2016

Attendee Society of Women Engineers Annual Conference, Philadelphia, PA   November 2016

Chair, Society of Women Engineers, Koc University, Istanbul   June 2016 - June 2017

Future Leader Selected as the future leader by SWE in the international region (outside the US)   August 2015

Attendee Society of Women Engineers Annual Conference, Nashville, TN   November 2015

Minor in Entrepreneurship, Nanyang Technological University, Singapore.   July 2015

Volunteer, Young Guru Academy Leadership School, Istanbul   January 2015 - March 2016

Volunteer, Make A Wish Turkey, Istanbul   September 2013 - June 2018

SKILLS

Fluent in Python, Pytorch, R with some experience in Java, SQL, NoSQL, Docker, Julia and C/C++.