

I am a research scientist at Google Brain, developing tools for understanding deep learning and improving its societal impact, particularly relating to fairness. Previously, I founded and led the Advanced Analytics team at Saudi Aramco, managed the company's Enterprise Analytics program, and was a technical lead at its digital transformation program.

EDUCATION

Doctor of Philosophy - PhD, Computer Science, KAUST, GPA: 4.0 / 4.0

Thesis title: "Learning via Query Synthesis." Committee: X. Zhang, X. Gao, D. Keyes (KAUST), and W. Wang (UCLA). 2012 — 2017

Master of Science, Electrical Engineering, Stanford University, GPA: 4.15 / 4.0

Emphasis on networked systems, artificial intelligence, and operations management. 2009 — 2011

Bachelor of Science, Computer Engineering, University of Nebraska, Lincoln, GPA: 3.98 / 4.0

Highest Distinction, Minor in Economics. 2000 — 2005

SKILLS

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| Research & Development | Authored 1 book, +25 research papers, 1 granted patent and 3 pending patents. |
| Communication | English (fluent), Arabic (native), German (elementary, A1). |
| Technical | Data science, artificial intelligence, modeling & optimization, digital transformation, networked systems (certified by Cisco, Juniper and Alcatel-Lucent). |
| Leadership | +2 years managing corporate-wide enterprise analytics program, leading the advanced analytics team, and serving as a technical lead at digital transformation program at Saudi Aramco. |

SELECTED ACTIVITIES

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| Program committee member at NeurIPS, ICML, ICLR, AAAI, and IJCAI. | 2017 — Present |
| Reviewer for TMLR, IEEE PAMI, IEEE TNNLS, and IEEE Communications Letters. | 2019 — Present |
| Member of the S20 Task Force (Digital Revolution). | 2020 |
| Chair of AI track of the 2019 Arab-American Frontiers Symposium. | 2019 |

AWARDS

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| Outstanding reviewer award, NeurIPS | 2016 |
| KAUST Provost Award. | 2012 |
| Saudi Aramco, Operation Services Business Line Recognition Award for "distinguished achievements." | 2012 |
| Saudi Aramco, Communications Engineering Dept recognition award for "significant contributions" to department's success. | 2009 |
| Saudi Aramco, Information Technology recognition, for "developing innovative solutions." | 2007 |
| University of Nebraska, Superior Scholarship Award. | 2005 |

PROFESSIONAL EXPERIENCE

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| RESEARCH & DEVELOPMENT SCIENTIST <i>Google, Brain Team</i> | NOV 2019 — Present <i>Zürich, Switzerland</i> |
| <ul style="list-style-type: none">Led / co-led several projects to improve understanding of deep learning and improving its fairness; e.g. pretraining with random labels, debiasing neural networks and datasets, data scaling laws, and calibration.Key member of a moonshot team for machine learning fairness in healthcare.Member of the Google Scholarship review team and mentor of AI residents. | |
| LEAD, ADVANCED ANALYTICS <i>Saudi Aramco, Corporate Applications Dept</i> | NOV 2017 — OCT 2019 <i>Dhahran, Saudi Arabia</i> |
| <ul style="list-style-type: none">Founded and led the Advanced Analytics team that was responsible for developing AI solutions, managing analytics infrastructures, conducting research collaboration with academia, evaluating technologies, and developing roadmaps.Technical lead at the Digital Transformation Program, with a mission to accelerate the adoption of artificial intelligence at the company. Sectors include downstream, supply chain, sales & marketing, IT, geospatial, cybersecurity and HR. | |
| PERFORMANCE ENGINEER <i>Saudi Aramco, Comm. Eng. Department</i> | JUN 2011 — AUG 2012 <i>Dhahran, Saudi Arabia</i> |
| <ul style="list-style-type: none">Performance management and capacity planning for enterprise communications services such as the Data Center, the Internet, Extranet, and Wireless LAN infrastructures.Developed an analytics tool for automated performance analysis and SLA compliance assessment. | |
| DATA NETWORK ENGINEER <i>Saudi Aramco, Comm. Eng. Department</i> | JUL 2005 — AUG 2009 <i>Dhahran, Saudi Arabia</i> |
| <ul style="list-style-type: none">Key member of an 18-month IT network security project for securing critical facilities.Project manager for a 1-year CCTV surveillance camera systems project (involving civil and communications work).Design, installation, configuration, reviews, upgrades, and troubleshooting of data networks. | |