Three Faculty Positions in Data Science: Human-Computer Teaming and Interactive Decision Making; Artificial Intelligence Architectures; and Trustable Artificial Intelligence
at the
University of Oklahoma, Norman Campus

Positions Available: As part of a multiyear effort to grow world-class data science and data-enabled research across The University of Oklahoma (OU), the Gallogly College of Engineering (GCoE), Department of Electrical and Computer Engineering and/or Department of Computer Science, in partnership with the Dodge Family College of Arts and Sciences (CAS), welcomes applications for a cluster of three (3) faculty positions from candidates whose experiences and interests have prepared them to be an integral contributor engaged in scientific discovery, developing talent, solving global challenges, and serving our society. This year we are focusing on data science foundational and enabling technologies. In subsequent years, we'll be hiring additional data science and data-enabled research faculty.

The University, as part of its *Lead On, University* strategic plan has committed to creating world-class capabilities in data science, artificial intelligence (AI), machine learning (ML), and data-enabled research. In July 2020, the University established the Data Institute for Societal Challenges (DISC) to grow convergent data-enabled research to solve global challenges. DISC currently has over 130 faculty members across OU campuses, nine communities of practice, seed funding programs, and an extended network of approximately 300 data scientists and data-enabled researchers across many disciplines (https://www.ou.edu/disc).

Three positions:

1) **Professor or Associate Professor in Human-Computer Teaming and Interactive Decision Making:** Humans and computers have complementary knowledge and skillsets. To solve challenging problems, we need to team this expertise together for effectiveness, reliability, efficiency, and adoption of many data-driven solutions. This area is cross-disciplinary, and we seek a senior faculty member with expertise in one or more of human-computer teaming, visualization, visual analytics, human-machine interaction, decision theory, HCI, human factors and industrial engineering, or cognitive psychology. This faculty member will be a vital core team member in data science and data-driven decision making with a home department in ECE and possible joint appoint in ISE, Computer Science, Psychology, and/or Political Science.

   Applications should be submitted online via Interfolio at http://apply.interfolio.com/112374. Inquires can be addressed to Professor David Ebert, chair of the search committee at ebert@ou.edu.

2) **Assistant Professor in AI Architectures:** We seek to recruit a transdisciplinary faculty member with expertise in one or more of the following areas: scalable, high-performance software and hardware architectures for AI and advanced analytics, advanced and domain-tailored data science, AI (trustable, science-based, and human-guided), and human-computer teaming. Specific areas of interest include probabilistic, neuromorphic, and novel architectures, software pipelines and operating system architectures to support high-performance analytics, and enable real-time trustable AI and decision-making. Since traditional computing architectures are still based on solving problems from the 20th century, new computing hardware and software architectures are needed to optimize computing for AI and machine learning and many new approaches to science and engineering. This faculty member will grow and complement work in computer engineering, computer science and the new OU quantum center (CQRT) with a home department in ECE and possible joint appointments where appropriate.

Applications should be submitted online via Interfolio at http://apply.interfolio.com/112359. Inquires can be addressed to Professor David Ebert, chair of the search committee at ebert@ou.edu.

3) **Assistant Professor in Trustable AI**. We are seeking an Assistant Professor in Trustable AI. Human-guided, science-based, explainable AI (xAI) are key areas to ensure AI is understandable, reliable, and robust for real-world applications. This faculty member will grow our expertise in one of the most rapidly developing and vital fields of data science, with a primary home in ECE and potentially joint appointments in CS, Psychology, and ISE. We seek a faculty member with expertise in one or more of science-based AI or machine learning (ML), human-guided AI/ML, explainable AI/ML, and closely related topics. This faculty member will be a vital core team member in data science, AI, and data-driven convergent research solutions to global challenges. This faculty member will provide vital capabilities that will empower research in all four strategic verticals and grow the data science ecosystem on campus to create the critical mass in data science needed for the success of the university's strategic plan, *Lead On, University.*

   Applications should be submitted online via Interfolio at http://apply.interfolio.com/112372. Inquires can be addressed to Professor David Ebert, chair of the search committee at ebert@ou.edu.

Gallogly College of Engineering: The mission of the GCOE is to foster creativity, innovation and professionalism through dynamic research, development and learning experiences.

The Gallogly College of Engineering is home to the Data Science and Analytics Institute (https://www.ou.edu/coe/dsai). The DSAI provides undergraduate and graduate certificates, Master's degrees, and PhD degrees in data science and analytics as well as offering workforce upskilling to industry partners. Faculty members in GCoE and across campus participate in the DSAI.

The University of Oklahoma: OU is a Carnegie-R1 comprehensive public research university known for excellence in teaching, research, and community engagement, serving the educational, cultural, economic and healthcare needs of the state, region, and nation from three campuses: Norman, Health Sciences Center in Oklahoma City and the Schusterman Center in Tulsa. OU enrolls over 30,000 students and has more than 2700 full-time faculty members in 21 colleges.

Norman is a vibrant university town of around 113,000 inhabitants with a growing entertainment and art scene. With outstanding schools, amenities, and a low cost of living, Norman is a perennial contender on "best place to live" rankings.
Visit http://www.ou.edu/flipbook and http://soonerway.ou.edu for more information. Within an easy commute, Oklahoma City features a dynamic economy and outstanding cultural venues adding to the region's growing appeal.

Qualifications
Successful candidates must have the interest and ability to contribute significantly to the advancement of these fields and develop a nationally recognized program of sponsored research; teach at both the undergraduate and graduate levels; supervise graduate students and postdoctoral fellows. A Ph.D. in computer science, engineering, or related discipline is required.

Application Instructions
Confidential review of applications will begin October 1, 2022. Candidates are invited to submit a

letter of interest, names of three references who will be contacted only upon approval from the applicant, curriculum vitae, and brief (~2-3 pages) statements of interest regarding 1) research, 2) teaching, and 3) service. The research statement should summarize your prior contributions to research and your goals for developing a research program at OU. The teaching statement should summarize past instructional and mentorship experiences, and plans/goals for teaching at OU (including existing and proposed courses) and advising a varied cohort of undergraduate and graduate students. The service statement should describe your vision for internal service to the academic unit, the College and the University, and for external service to our scientific community and other stakeholders. Candidates are requested to submit their applications to the appropriate position listed above and inquiries should be directed to the search committee chairs, also listed above.

Inquiries should be directed to the search committee chair:
Dr. David S. Ebert, Gallogly Chair Professor
School of Electrical and Computer Engineering and School of Computer Science
Associate Vice President of Research and Partnerships
Director, Data institute for Societal Challenges
University of Oklahoma
Email: ebert@ou.edu

Equal Employment Opportunity Statement
The University of Oklahoma, in compliance with all applicable federal and state laws and regulations does not discriminate on the basis of race, color, national origin, sex, sexual orientation, genetic information, gender identity, gender expression, age, religion, disability, political beliefs, or status as a veteran in any of its policies, practices, or procedures. This includes, but is not limited to: admissions, employment, financial aid, housing, services in educational programs or activities, or health care services that the University operates or provides.

Diversity Statement
The University of Oklahoma is committed to achieving a diverse, equitable and inclusive university community by recognizing each person's unique contributions, background, and perspectives. The University of Oklahoma strives to cultivate a sense of belonging and emotional support for all, recognizing that fostering an inclusive environment for all is vital in the pursuit of academic and inclusive excellence in all aspects of our institutional mission.

Mission of the University of Oklahoma

The Mission of the University of Oklahoma is to provide the best possible educational experience for our students through excellence in teaching, research and creative activity, and service to the state and society.