

Peter O'Donnell, Jr. Director of the Data Science Institute Southern Methodist University Dallas, Texas

The Search

Southern Methodist University (SMU), the premier private university in North Texas, seeks a visionary and highly collaborative leader to serve as the Peter O'Donnell, Jr. Director of the Data Science Institute (Director). This is an extraordinary opportunity to lead a distinguished institute and help chart the course of its future. SMU is entering the second year of a \$1.5 billion capital campaign to attract and support outstanding students and faculty, to explore new fields with cutting-edge research empowered by future-facing technologies, and to positively impact Dallas and the world beyond. With appointment beginning as early as the fall 2023 semester, the Director will have the opportunity to reimagine and implement a strategic vision for future excellence.

With the support of the Provost and the Vice Provost for Research and Chief Innovation Officer, the Director will help position SMU as a respected leader in data science and high-performance computing by creating an ecosystem of data-related research, computational power, education, and engagement. As the commensurate leader of the Data Science Institute (DSI) and Center for Research Computing (CRC), the Director will develop, implement, and effectively communicate a vision that encourages productive collaborations across the university. In doing so, the Director will oversee initiatives and operations dedicated to catalyzing interdisciplinary data science research, scholarship, and innovation while establishing critical partnerships with other academic institutions, government agencies, and major corporations and local industry. As an advocate for the DSI and computing power at SMU, the Director will, firstly, broadcast SMU's compelling story to further generate wide-ranging philanthropic support for the institute's growth and expansion; and, secondly, make significant contributions to SMU's efforts towards Carnegie Research I (R1) classification.

The Director will bring a demonstrated record of multidisciplinary team-building experience and a collaborative, inspirational, and entrepreneurial leadership style. Experience in launching and sustaining multidisciplinary programs or initiatives, building sustainable infrastructure in the research space,

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exercising sound fiscal management and growth, and fostering positive and trusting organizational culture will contribute to the Director's success.

SMU has retained Isaacson, Miller, a national executive search firm, to assist with this important search. Inquiries, nominations, and applications should be directed in confidence to the firm as indicated at the end of this document.

Role of the Director

Reporting to the Provost and Vice President for Academic Affairs, the Director will provide leadership and vision; promote external visibility of the DSI and complementary computing capabilities; foster the growing research enterprise at SMU; encourage cross-campus collaborations; cultivate strong partnerships with industry and government; and manage fiscal and physical resources. In addition, the Director will effectively work with corporations, governmental agencies, and other benefactors to expand the reach of the institute and garner financial support.

The Director both leads the DSI and provides oversight for the Center for Research Computing. The Director additionally serves as the Provost representative on the new jointly administered Department of Statistics and Data Science leadership team. The Director will act in a consulting capacity and will work collaboratively with the deans of the Cox School of Business, Lyle School of Engineering, and Dedman Colleg to drive curriculum and innovation within the Department's programs and operations. In addition to critical programmatic and technological management, the new Director will lead and engage the 12 new data science cluster hires and determine what mechanisms should be in place to successfully do so.

The Director is a broad leader on campus who will contribute to conversations and strategy that will shape the future of data science, high-performance computing, and research at SMU. The Director is an endowed position which includes funds for operational expenses. The Director has one administrative staff and the option to use allocated resources to fund additional functional support if desired.

The Data Science Institute

The vision for the future of the <u>Data Science Institute</u> encompasses a broad entity that serves to link and enhance data science across the entire SMU campus, complemented by physical resources. The DSI has designated space within Gerald J. Ford Hall, a 50,000-square-foot building that serves as an interdisciplinary research hub for those engaged in data-intensive research, but is also charged with establishing relationships across campus in order to support a culture that is highly inclusive and far reaching. Existing affiliate DSI faculty can continue their relationship with the institute and will be integral to building bridges across academic units. The DSI will invest in opportunities aimed at enriching data science across SMU.

The Center for Research Computing

The Director will oversee SMU's <u>Center for Research Computing</u>, responsible for management of the highperformance computing cluster and its related policies and bylaws. One of SMU's greatest assets is their multi-million-dollar investment in high-performance computing technology. Their NVIDIA DGX SuperPOD, with 100 petaflops of supercomputing power, is a game-changing tool for research and positions SMU as world class in terms of next generation AI capabilities. In partnership with the Office of Information Technology and Chief Information Officer, the Director will secure maximum impact of SMU's current and future investments in high-performance computing and will possess the administrative acumen to do so effectively, efficiently, and transparently.

Key Opportunities and Challenges for the Peter O'Donnell, Jr. Director of the Data Science Institute

The Director will address the following opportunities and challenges:

Reimagine and implement a unifying strategic vision for the future

The interdisciplinary nature of the DSI welcomes creative, innovative, and diverse thought. The incoming leader of the DSI will need to be strategic about defining data science as an indispensable tool for modern research, formalizing and advancing the cross-disciplinary work of the DSI on campus, and advocating for the continued support of DSI's research and engagement with the computing research field. As a data science leader, the Director will need to have an understanding of controlled data and an awareness of the current and coming changes and influences that will affect data usage and availability. A familiarity with data science and how it intersects with other academic disciplines in applied research as well as a familiarity with the greater research enterprise in a university setting will be critical for the Director's success. With a creative and entrepreneurial spirit, the successful Director will effectively distinguish SMU's Data Science Institute from others and will conceptualize data science beyond just the generation of analysis and will illuminate why data is being generated, what creative questions data can answer, and how its applications impact the real world. The successful Director will be a bold visionary able to pair a deep understanding of SMU and its assets with knowledge of the field of research and related federal priorities. The Director will be able to align what is current in the field with possibilities at SMU to identify the next great opportunities for impact in research and catapult SMU to R1 status. The Director's ability to craft a shared vision for the future that is equally daring and creative as it is relevant and feasible will be vital.

Cultivate a highly-collaborative, inclusive, and interdisciplinary community of research at SMU

The Director will be a strategic thinker who engages broadly and deeply with all colleges, centers, institutes, and data science related offices. The success of the DSI is dependent on its multidisciplinary and cross-collaborative nature. There is a desire for a more formalized structure that supports and encourages coalescence among leaders and researchers and for strengthened communication among the

various data science operations on campus. There is an opportunity to move beyond traditional users of computational power and leverage new areas of intersectional interest. The Director will be charged with creating a community of practice across campus, discovering, fostering, and resourcing the grassroots interdisciplinary efforts utilizing data science that are already taking place. The Director must be a talented communicator – multicompetent across disciplines and audiences – an engaging storyteller, and most importantly a good listener. Building strong, trusting relationships will be essential for the Director's success.

Identify opportunities for greater research productivity and attraction of research funds in pursuit of R1 status

SMU's ambitious goal of achieving R1 status will be central to the Director's role. Under their purview, achieving such status will require a strengthening and deepening of relationships with external partners – with the goal of attracting resources into the institute – while simultaneously bolstering SMU's research infrastructure and encouraging faculty pursuit of newer, greater opportunities.

SMU's location near the heart of the rapidly growing and dynamic Dallas-Fort Worth metropolitan area, a global center of commerce and culture with one of the highest concentrations of corporate headquarters in the United States, is rich with opportunities for industry, foundation, and municipal partnerships. Increasingly, they look to future-focused universities like SMU for innovative ideas, datadriven research to guide economic development decisions, and investments to support continued economic growth and increase economic equity. The new Director is charged with responding to this call. The successful Director will establish and cultivate mutually beneficial partnerships with local industry, tying the impactful work of the DSI into the economic development of Dallas-Fort Worth.

The Director will play a crucial advocacy role for SMU data science, computing, and research, identifying and pursuing strategic public and private partnerships that enable both the DSI and CRC to flourish. The Director will embrace philanthropy and partner with the Development and External Affairs Office to engage major donors and to leverage an existing development program. They will be called upon to speak and engage as an expert in applied research and impact, conveying a compelling vision for how the DSI can contribute to addressing industry's most important questions and new areas of inquiry.

The role requires a keen and knowledgeable focus on grant and research infrastructure. The next Director will actively promote the submission of multidisciplinary grant proposals and provide project management and supplemental pre- and post-award administrative support to achieve sustainability. Prioritizing new initiatives that enhance faculty scholarship, increase academic excellence, and expand and diversify extramural funding will be key to this endeavor. The Director will provide leadership for growth in research funding; the opportunities available to the DSI will be dictated by their ability to generate and diversify revenue streams, be they in the form of sponsored research, industry contracts and/or consortia or grant attainment.

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Key Qualifications and Characteristics

The successful candidate will possess many of the following professional qualifications, experiences, and characteristics:

- A Ph.D. or terminal degree and a record of nationally recognized research and scholarship (optional appointment as a tenured faculty member, though not required)
- Knowledge and experience commensurate with leading a premier institute that facilitates cutting edge research
- Interest in promoting the expansion of research involving data science, with an emphasis on AI, across academic disciplines
- A record that demonstrates vision for the future of research
- Ability to work across disciplinary boundaries and to develop and lead research coalitions including extramural partners
- A deep understanding of the interface of academia and industry
- A deep understanding of the research enterprise in a university setting
- Capacity and commitment to be a successful fundraiser through building strong relationships with a broad range of constituencies
- Awareness of current and coming changes in the funding and research landscape
- Administrative experience and business acumen
- Excellent written and oral communication skills
- Excellent interpersonal skills across all stakeholder groups; an ability to represent University research to a variety of stakeholders
- Personal and professional integrity in all matters, including commitment to equity, diversity, inclusion, compliance with University Policies, and federal, state, and local guidelines

Data Science at SMU

SMU's existing programs and efforts in data science constitute a major strength and make the university well-positioned to be a leader in the space, with the Data Science Institute being at the center of this mission. There are eight Masters programs across three colleges that offer degrees involving or contributing to data science. Strong programs in applied mathematics, statistical science, and computer science provide the expertise required to develop new methods to manage and evaluate data. Robust research in fields influenced by big data is already conducted by faculty widely across colleges and academic units at SMU.

Recent academic reorganizations and faculty cluster hires further serve to advance data science on campus. The new Department of Statistics and Data Science will draw on faculty in SMU's Cox School of Business, Lyle School of Engineering, and Dedman College in a matrixed structure overseen by the deans of those schools, under the guidance of an associate provost and with the Dean of Dedman College as

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lead dean. The department will be responsible for the undergraduate majors and minors in Statistical Science and Data Science, the MS in Applied Statistics and Data Analytics, the MS in Data Science, and the newly-approved Ph.D. in Data Science. In fall 2022, SMU launched a Data Science faculty hiring cluster, consisting of 12 faculty lines to support and advance growing capabilities across a wide array of research disciplines ranging from computational biology to health analytics and human performance.

Led by the Director, the newly established Data Science Institute will play a central role in expanding computer-powered research across the disciplines and increasing SMU's data science strengths.

Research at SMU

Under President Turner's leadership, the University has made unprecedented progress academically and financially. Still, SMU remains ambitious; the University aspires to be one of the premier private higher learning institutions in the United States. To this end, the Launching SMU's Second Century strategic plan lays out six ambitious goals through 2025, including the need to strengthen scholarly research, creative achievement, and opportunities for innovation.

SMU believes it can reach R1 status within the next five years. A key driver of this improvement is the \$100 million gift from the Moody Foundation to fund the Moody School of Graduate and Advanced Studies. President Turner also points to SMU's work with the U.S. Department of Defense that awarded a supercomputer system to the University in 2013.

The push to reach R1 status is part of the broader \$1.5 billion fundraising campaign with about \$900 million committed so far. It specifies:

- Over \$600 million to enrich teaching and research
- Over \$450 million to empower outstanding students
- Over \$450 million to enhance campus and community support

In support of the strategic priority of achieving R1 status, SMU has increased investments in supporting Ph.D. education and assembled significant resources. The <u>Darwin Deason Institute for Cyber Security</u>, the <u>Center for Research Computing</u>, the <u>Data Science Institute</u>, the <u>AT&T Center for Virtualization</u>, the <u>Center for VR Learning Innovation</u>, and the <u>Hart eCenter</u> engage in emergent 21st-century technologies and issues including AI/ML, AR/VR, visualization, human-computer interface, cyber security, the internet of things, and distributed computing. The NVIDIA DGX SuperPOD collaboration last year enhanced what was already a strength at SMU, increasing the university's supercomputer memory tenfold and setting the stage for AI and machine learning 25 times faster than current levels. Additional hardware, software, and training investments from the University makes SMU a world leader in this space and has game-changing implications for a range of academic units as well as employers in a growing technology hub.

SMU is a member of <u>LEARN (Lonestar Education and Research Network)</u>, which operates a state-of-theart fiber-based optical and IP network throughout the state of Texas, and is the connector to the Internet2 advanced network, comprising more than 200 U.S. universities in partnership with 70 leading corporations, 45 government agencies, laboratories and other institutions of higher learning, as well as more than 50 international partner organizations.

SMU researchers are helping to re-invent the way students are educated in STEM fields on the national and local level with <u>projects testing the effectiveness of innovative math curriculum</u> and the development of the <u>West Dallas STEM School</u> – a joint project between the University, the Toyota USA Foundation, and Dallas Independent School District. Faculty are also conducting research with far-reaching consequences for global nuclear security through work with the <u>Incorporated Research Institutions for Seismology</u>. These are just a few examples of SMU faculty applying their research to help solve some of the most pressing problems facing the nation and the world today.

The University is in the process of completing cluster hires of faculty that will enhance areas of established research strength at SMU, particularly in the areas of data science and high-performance computing. In addition to that, since 2021, SMU has launched interdisciplinary cluster hires across areas of strategic research excellence: earth hazards and national security and technology enhanced immersive learning.

About Southern Methodist University

A nonsectarian university with a focus on global impact, SMU serves more than 12,000 students in eight degree-granting schools and engages 25 PhD programs in science and engineering, social science, humanities, and education and human development. Since its founding more than 100 years ago, SMU has been steadily gaining a reputation as a top academic institution, currently ranked No. 72 in National Universities by *U.S. News and World Report*. Since 2005, SMU has advanced past 55 institutions in the Carnegie Classification of Research Universities and is currently a doctoral university with high research activity (R2). Annual research expenditures at SMU have more than doubled since 2015 and are now approaching \$60 million. SMU's FY 2022 operating budget is \$819 million, and the current endowment is valued at \$2.1 billion. With the establishment of the Moody School of Graduate and Advanced Studies in 2020, thanks to a landmark \$100 million commitment from the Moody Foundation, an ambitious strategic plan, and the recent launch of the comprehensive campaign <u>SMU Ignited: Boldy Shaping Tomorrow</u> with a target of \$1.5 billion – SMU is well-positioned to achieve Carnegie R1 status in the coming years.

Located near the heart of the dynamic Dallas-Fort Worth metropolitan area, a global center of commerce and culture with one of the highest concentrations of corporate headquarters in the United States and in the fastest growing region in the country, SMU is rich with opportunities for industry partnerships. As the Texas economy booms, companies and institutions look to future-focused universities like SMU for innovative ideas, data-driven research, and technology that can accelerate knowledge and tackle grand challenges. With a greater Dallas population exceeding 6.8 million (the fourth largest and fifth-most diverse metropolitan area), the region is home to the 10th most frequently traveled airport in the world and has been identified by *Forbes* as one of five cities "poised to be the next Silicon Valley tech hub." The region is No. 9 in North America for tech talent and No. 5 for women in the tech workforce. Dallas boasts the nation's largest urban arts district, which consists of world-class museums and a luminous cluster of performing arts spaces, highlighted by the Winspear Opera House, described by *Opera* magazine as America's finest. It is home to four professional sports teams and offers easy access to a range of outdoor activities throughout the region. With the Trinity River, White Rock Lake, almost 400 parks, and over 125 miles of urban hiking and biking trails, the city provides abundant opportunities to enjoy the outdoors, and the city has been named one of the Greenest Cities in the world. SMU students and faculty benefit from proximity to the Dallas metropolitan area as an extension of the classroom, characterized by engaged learning projects and community partnerships.

Now in its second century, the University aims to create, expand, and impart knowledge through teaching, research, and service, shaping world changers who contribute to their communities and excel in their professions in a global society. An internationally recognized center for teaching, learning, and research, SMU serves as an intellectual resource for Dallas and the world. While it has deep roots in the Methodist tradition, the University is nonsectarian in its teaching and is committed to open inquiry and academic freedom.

Classified by the Carnegie Foundation for the Advancement of Teaching as a "high research activity" institution, SMU is a scholarly environment in which students work side-by-side with close to 800 faculty to advance the arts, humanities, and sciences. The University offers over 150 graduate and professional degrees in its eight schools: <u>Dedman College of Humanities and Sciences</u>, <u>Algur H. Meadows School of the Arts, Edwin L. Cox School of Business</u>, <u>Bobby B. Lyle School of Engineering</u>, <u>Dedman School of Law</u>, <u>Perkins School of Theology</u>, <u>Annette Caldwell Simmons School of Education and Human Development</u>, and the Moody School of Graduate and Advanced Studies.

The University is home to more than 7,000 undergraduate and nearly 5,000 graduate students. Thirtythree percent of all enrolled students identify as ethnic minorities. 51% of undergraduates and 49% of graduate students are female. Among students reporting a religious preference, 28% are Catholic, and 12% are Methodist; 39% are from other Protestant denominations, and 10% represent other religions (including Judaism, Islam, and Hinduism).

SMU has a total of <u>44 centers and institutes</u>, many of those focused on diverse and interdisciplinary subjects. They include the <u>Deason Family Criminal Justice Reform Center</u>, the <u>Hunt Institute for Engineering and Humanity</u>, the <u>Hart Center for Engineering Leadership</u>, the John Goodwin Tower Center for Public Policy and International Affairs, the <u>William P. Clements Center for Southwest Studies</u>, the <u>Cary M. Maguire Center for Ethics and Public Responsibility</u>, the <u>Dedman College Interdisciplinary Institute</u>, and the <u>Caruth Institute for Entrepreneurship</u>. The University is also home to the <u>George W. Bush Presidential</u>

<u>Center</u>, which includes the presidential archives of the Bush Administration, a museum with permanent and traveling exhibits, and an independent public policy institute.

SMU is located on 234 acres in the beautiful residential University Park area, just five minutes north of downtown Dallas. The faculty, students, and staff enjoy all the cultural, athletic, and recreational opportunities that the ninth-largest city in the country provides. A 2021 economic study by SMU totaled its economic impact for North Texas at about \$7 billion. SMU is a "net importer" of talent, with about 60% of students from out-of-state and about two-thirds of graduates staying in the Dallas-Fort Worth area for their first job.

SMU also operates a campus in Taos, New Mexico. SMU Taos is a 423-acres-campus with 31 buildings, located within the Carson National Forest and surrounded by the Sangre de Cristo Mountains. <u>SMU-in-Taos</u> offers summer credit courses that emphasize experiential learning and hosts enriching programs for alumni, friends, and members of the Taos community.

Diversity, Equity, and Inclusion

Diversity is an important part of SMU's values and future plans as evidenced by both the 2006-2015 and 2016-2025 Strategic Plans. The first goal for 2016-2025 includes strengthening the University's ability to recruit, appoint, promote, and retain a distinguished, gifted, and diverse faculty, and enhancing the University's ability to recruit, retain, and graduate academically and creatively gifted undergraduate and graduate students from diverse backgrounds. Over the course of the 2006-2015 Centennial Strategic Plan, SMU increased and diversified its student applicant pool and increased underrepresented minority student enrollment. The University also significantly increased scholarships to compete for students.

In an effort to transcend traditional diversity training, the University launched the <u>Cultural Intelligence</u> <u>Initiative at SMU</u> in 2017, which is designed to prepare faculty, students, and staff with the knowledge and skills to communicate effectively and authentically with each other to solve complex issues facing the SMU community and the world today.

In the summer of 2020, the Black Unity Forum, a consortium of students, faculty, staff, and alumni groups came together to develop an <u>action plan</u> aimed at helping SMU become a more welcoming and inclusive environment for Black students, faculty, and staff. The University's responses and progress updates can be accessed <u>here</u>.

Leadership at SMU

<u>President R. Gerald Turner</u> has served as SMU's president since 1995. Before joining SMU, President Turner was the chancellor of the University of Mississippi. He also served in administrative positions at the University of Oklahoma and Pepperdine University. He earned an AA degree from Lubbock Christian

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University, a BS in psychology from Abilene Christian University, and an MA and a PhD in psychology from the University of Texas at Austin.

<u>Provost and Vice President for Academic Affairs Elizabeth G. Loboa</u> joined SMU on July 6, 2020. A biomedical engineer, she came to SMU from the University of Missouri where she held the position of vice chancellor for strategic partnerships, dean of the College of Engineering, and Ketcham Professor of the College of Engineering. She earned her BS in mechanical engineering from the University of California, Davis, and received both her MS in biomechanical engineering and her PhD in mechanical engineering from Stanford University.

Applications, Inquiries, and Nominations

Southern Methodist University has retained Isaacson, Miller, a national executive search firm to assist in this recruitment. Review of candidates will begin immediately and continue until the position is filled. Nominations, inquiries, and applications, including a letter of interest describing the individual's qualifications for the position and curriculum vitae, should be sent electronically in confidence to:

Andrew Lee, Managing Partner Courtney Cabansag, Associate Isaacson, Miller 1800 K Street, NW, Suite 750 Washington, DC 20036

To apply, please visit: <u>https://www.imsearch.com/open-searches/southern-methodist-university/peter-odonnell-jr-director-data-science</u>

SMU will not discriminate in any employment practice, education program, education activity, or admissions on the basis of race, color, religion, national origin, sex, age, disability, genetic information, or veteran status. SMU's commitment to equal opportunity includes nondiscrimination on the basis of sexual orientation and gender identity and expression. The Executive Director for Access and Equity/Title IX Coordinator is designated to handle inquiries regarding the nondiscrimination policies, including the prohibition of sex discrimination under Title IX. The Executive Director/Title IX Coordinator may be reached at the Perkins Administration Building, Room 204, 6425 Boaz Lane, Dallas, TX 75205, 214-768-3601, accessequity@smu.edu.