

Search for the Mark D. Wheeler Chair in Artificial Intelligence School of Science and Engineering Tulane University New Orleans, Louisiana

THE SEARCH

Tulane University, one of the nation's premier research institutions, seeks a creative and interdisciplinary scholar to serve as the Mark D. Wheeler Chair in Artificial Intelligence within the School of Science and Engineering's Department of Computer Science. As part of a significant investment in research and faculty excellence, the Wheeler Chair will join a strong university with the opportunity to harness institutional momentum, leverage numerous assets and areas of strength, and contribute to driving interdisciplinary world-class scholarship in computing.

Tulane's cross-disciplinary culture, community spirit, and navigable size present a unique opportunity for a leader in AI innovation for social impact. The rapid growth of the Department of Computer Science – including new AI faculty, a new minor in AI, and over 120% growth in research funding in the past five years – makes it an ideal moment for a Chair in Artificial Intelligence to join the department. Furthermore, the Louisiana Economic Development Office's new LA.IO and AI Research Institute, which has pledged \$ 100 M+ for innovation investment, signals a burgeoning local ecosystem for AI initiatives. The Wheeler Chair will help position Tulane as a respected leader in artificial intelligence, creating an ecosystem of cross-disciplinary AI research, education, and application. Encouraging coalescence among AI scholars and researchers across campus, harnessing the grassroots interdisciplinary efforts that are already taking place while leveraging Tulane's unique resources to pursue new areas of interest, will be essential for the role's success. The Wheeler Chair will create an AI For All mindset, crafting and communicating a vision for AI at Tulane that scholars across the university can buy into and equipping and enabling others to pursue greater research opportunities.

Tulane seeks individuals with superlative scholarly records of achievement and impact in their field who are energized by Tulane's vision and momentum. In addition to leadership in their own research area, the Wheeler Chair will have the capacity to contribute to the department's overall strategic direction, ensuring that it is advancing new frontiers in the field and capitalizing on the strengths and assets of the university. This individual will be a catalyst for research, maintaining a high-impact research agenda, mentoring faculty and students, attracting partnerships with industry, and strengthening the university's reputation as a hub for impactful interdisciplinary scholarship in artificial intelligence and computing. Candidates must have academic records commensurate with appointment with tenure and are expected

to maintain an active externally-funded research program as well as contribute to the educational training and teaching missions.

Tulane has retained Isaacson, Miller, a national executive search firm, to assist in this recruitment. All inquiries, nominations, and applications should be directed in confidence as noted at the end of this document.

THE DEPARTMENT OF COMPUTER SCIENCE

The Department of Computer Science emphasizes both core computer science and its applications to related areas in the sciences and engineering, health and social sciences, and the humanities. Its mission is for faculty and students to be recognized both nationally and internationally for their interdisciplinary research, training the next generation of computer scientists who work at the interface of computer science and other disciplines. The Department of Computer Science is headquartered in the School of Science and Engineering (SSE) on Tulane's picturesque uptown campus, along with office, laboratory, and engineering facilities. Steven and Jann Paul Hall provides the latest in science and engineering infrastructure, including flexible laboratories, innovative classrooms, and collaborative spaces for increased student and faculty engagement and retention. The department is home to 17 faculty who have developed a strong expertise in algorithms, artificial intelligence, computational biology, computer science education, computational geometry and topology, computer vision, data science and large data processing, game theory, image processing, machine learning, natural language processing, networking, cloud computing optimization, privacy and security, and scientific visualization. The department offers various programs at the undergraduate and graduate levels: an undergraduate CS certificate, an AI minor, a coordinated CS major, a CS major, as well as a Master's program (on-ground and online) and a PhD program. The department serves a community of over 600 students, including roughly 150 undergraduate and 80 graduate majors, and is poised for further expansion thanks to recently launched degree programs.

The Department of Computer Science is leading the way in artificial Intelligence explorations. Through the interdisciplinary nature of Tulane, researchers approach and tackle the challenges of our time from a diversity of backgrounds, skillsets, and lenses. Tulane is dedicated to finding AI solutions to the urban and societal challenges of today, taking an interdisciplinary approach to some of the community's most relevant issues. AI crossover opportunities with public health are rich and ripe for study. Other areas of interdisciplinary AI study include AI fairness and ethics, community engagement with AI in medical and bio health, and urban AI and smart cities. The <u>Center for Community-Engaged Artificial Intelligence</u>, a multidisciplinary team of scientists, engineers, students, and community partners dedicated to innovating human-centered AI to benefit society, brings together a variety of AI research efforts and initiatives at Tulane. The Department of Computer Science is also home to the Jurist Center for Artificial Intelligence. Supported by the Harold L. and Heather E. Jurist NC'64 Endowed Fund, the Jurist Center supports research and education in artificial intelligence, machine learning, and data science, with a focus on using AI in applications that pave the way toward a healthier, more connected global community.

More information about the Department of Computer Science can be found at: https://sse.tulane.edu/cs

THE ROLE OF THE WHEELER CHAIR

The Mark D. Wheeler Chair in Artificial Intelligence was established in 2024 to honor alumnus Mark Wheeler. Dr. Wheeler graduated from Tulane University in 1989 with a bachelor's degree in computer engineering. He went on to co-found DeepMap Inc., a software developer of high-definition maps for self-driving vehicles, which was later acquired by Nvidia in 2021, where Dr. Wheeler now serves as vice president for systems software. The Wheeler Chair will accelerate the university's recent progress in Al and further position Tulane as a leader in the Al space.

The successful candidate will be an accomplished scholar conducting pioneering, interdisciplinary research in artificial intelligence and its applications. The Wheeler Chair will be an established leader who will enhance existing research collaborations and forge new ones across the university. The ideal candidate will have exceptional research credentials in artificial intelligence, a strong track record of securing substantial research funding, and experience leading multidisciplinary research initiatives at scale. In addition to a commitment to research growth, excellence in teaching at both undergraduate and graduate levels is essential.

The Wheeler Chair will be expected to engage in world-class scholarship and research development and advance departmental leadership in computer science by leveraging existing AI research within the department and beyond, simultaneously strengthening ties with other academic units and relevant industrial partners. Tulane seeks candidates with demonstrable leadership initiative who will attract people across disciplines to solve problems that will help the greater region and society. Candidates must have academic achievements commensurate with appointment with tenure in computer science, and will be expected to maintain an active externally-funded research program. The successful candidate will have an outstanding record of scholarly and impactful contributions to their field.

APPLICATIONS, INQUIRIES, AND NOMINATIONS

Tulane University has retained Isaacson, Miller, a national executive search firm, to assist the search committee in its identification and review of candidates. Screening of complete applications will begin immediately and continue until the completion of the search process. Inquiries, nominations, referrals, and CVs, cover letters, a teaching statement and a research vision statement should be sent electronically and in confidence via the Isaacson, Miller website: <u>https://www.imsearch.com/open-searches/tulane-university/mark-d-wheeler-chair-artificial-intelligence</u>

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Tulane University is an Equal Employment Opportunity/Affirmative Action institution committed to excellence through diversity. Tulane University will not discriminate based upon race, ethnicity, color, sex, religion, national origin, age, disability, genetic information, sexual orientation, gender identity or



expression, pregnancy, marital status, military or veteran status, or any other status or classification protected by federal, state, or local law. All eligible candidates are encouraged to apply.



APPENDIX A: TULANE UNIVERSITY

Tulane traces its origins to 1834, when it was founded as the Medical College of Louisiana. It was renamed the University of Louisiana by the state legislature in 1847. The legislature subsequently transferred it to the Board of Administrators of the Tulane Education Fund in 1884. With that transfer, Tulane University was established as a private, nonsectarian university and named in honor of benefactor Paul Tulane, a wealthy merchant who donated more than \$1 million in land, cash, and securities "for the promotion and encouragement of intellectual, moral, and industrial education." In 1886, the H. Sophie Newcomb Memorial College was established as Tulane's college for women. The unified Newcomb-Tulane College now enrolls all full-time undergraduates at the university.

Today, the university has an operating budget of just over \$1 billion and an endowment of \$2 billion. Tulane enrolls approximately 8,600 undergraduate and 5,900 graduate and professional students from every state in the U.S. and more than 85 nations worldwide. The Tulane faculty totals over 1,200 full-time members with a staff of approximately 2,900. The university is organized into ten academic divisions: Newcomb-Tulane College, A.B. Freeman School of Business, School of Architecture, School of Professional Advancement, School of Law, School of Liberal Arts, School of Medicine, Celia Scott Weatherhead School of Public Health and Tropical Medicine, School of Science and Engineering, and the School of Social Work. The mix of schools is an asset that is rich with opportunities for cross-school collaboration in research and education.

Tulane University is a member of the prestigious Association of American Universities, and the Carnegie Foundation for the Advancement of Teaching ranks Tulane as a university with "very high research activity." As such, it is committed to the highest level of research. Tulane attracts an outstanding student body that is both intellectually curious and driven by community engagement. The university's 8:1 undergraduate-student-faculty ratio allows Tulane undergraduates to receive the personalized attention of a smaller liberal arts college with the resources of a major research institution. In 2006, Tulane became the first major research institution to require public service as a graduation requirement for undergraduates, which led to the Carnegie Foundation recognizing Tulane with its Community Engagement Classification. Tulane is also the most nationally recognized university in the country, with its undergraduates traveling further to attend college on average than those of any other university. As such, it plays a valuable role in recruiting talent to New Orleans, as only 15% of Tulane's students are from New Orleans, and about 20% of all Tulane graduates stay in Louisiana after graduation.

The current <u>Always the Audacious</u> fundraising campaign seeks to harness Tulane's rising momentum and chart a bolder vision for the university's future. Significant investment in Tulane's research engine is one of four central pillars of the campaign, with an emphasis on expanding facilities and investing in faculty excellence. A critical element of the research growth strategy includes funding numerous endowed chairs and professorships across disciplines. As the ultimate recognition for faculty members, these prestigious roles are a powerful tool to attract and nurture exemplary faculty.

For more information about Tulane University, please visit the Tulane website: <u>https://tulane.edu/</u>.

APPENDIX B: THE SCHOOL OF SCIENCE AND ENGINEERING

Created in 2006, the School of Science and Engineering (SSE) is unique as the only academic unit at a major research university to merge the behavioral sciences, physical sciences, life sciences, engineering, and mathematics, which provides an unusually rich environment for innovative programs and interdisciplinary research. SSE is a relatively young school that was developed strategically to capitalize on the natural synergies between science and engineering disciplines. It has pioneered a new model for integrated science and engineering education and research and positioned Tulane to be a leader in the STEM disciplines. It recognizes the role that information technology, biotechnology, and nanotechnology play in today's global economy and aims to provide its students with the necessary skills to be leaders in discovery and innovation.

SSE provides an environment in which scientists and engineers work together in an integrated organization on problems of mutual interests, where current research in engineering is informed by current research in science and vice versa, and where students, regardless of their major field of study, have the opportunity to explore concepts and methods of both science and engineering. The school comprises eleven academic departments: Biomedical Engineering, Cell and Molecular Biology, Chemical and Biomolecular Engineering, Chemistry, Computer Science, Earth and Environmental Sciences, Ecology and Evolutionary Biology, Mathematics, Physics and Engineering Physics, Psychology, and River-Coastal Science and Engineering.

SSE has been an extremely successful hub of research on the Tulane campus. The faculty of SSE expends approximately \$30 million in research, generates over 500 articles in referred journals, and files over 15 new patents annually. In addition, SSE supports numerous opportunities for undergraduate research activity and is home to flourishing graduate programs. SSE graduates the largest number of doctoral students at Tulane. Among the 140 tenure-track faculty are 15 endowed chairs and 19 endowed professors. Many of these endowed positions are affiliated with the university's interdisciplinary research centers that capitalize on the close-knit and collaborative Tulane environment.

SSE has partnered with the university to expand its facilities with the development of a new, five-story, state-of-the-art building, Paul Hall, which opened in 2024. Overall, SSE occupies roughly 300,000 square feet of space across nine buildings, including a state-of-the-art MakerSpace.

As part of the mission to engage in the local community, SSE supports a K-12 STEM Education Outreach program. The program exposes young students to STEM in meaningful and appealing ways with projects such as the Robotics Bayou Regional Competition.

Additional information about the School of Science and Engineering can be found at: <u>https://sse.tulane.edu/</u>.

APPENDIX C: RESEARCH AND INNOVATION AT TULANE

Over the last decade, Tulane has seen a period of historic growth and has invested heavily in research, innovation, and entrepreneurship initiatives across the university. Tulane is committed to continuing strategic investments that deepen the university's commitment to world-class research. Nearly half of the \$1.5 billion raised by Tulane's *Only the Audacious* fundraising campaign has been allocated to support research through investments in infrastructure and increasing the number of endowed faculty positions at the university. Building upon the success of the previous campaign, the next iteration, *Always the Audacious*, supports 21st-century advances in climate, river, and coastal sciences, emerging infectious diseases, brain health, healthy aging, health equity, and much more while expanding and increasing lab spaces and infrastructure for translational research.

The university continues to make major investments in infrastructure to keep up with the extraordinary growth in research activity and the ambitions of Tulane's faculty. This includes efforts like the Tulane University Translational Science Institute (TUTSI), which brings together researchers from Tulane School of Medicine, School of Public Health and Tropical Medicine, School of Science and Engineering, and School of Social Work to find better ways to diagnose, treat, and prevent disease and translate scientific discoveries into medical practices that improve patient care and public health. Other areas of investment include data sciences, artificial intelligence, and coastal mitigation. Recently, longtime Tulane supporters Libby and Robert Alexander donated more than \$12 million to advance a university-wide data science initiative that will transform teaching and research across all disciplines at Tulane and position the university as a leader in data pedagogy. Tulane's Connolly Alexander Institute for Data Science, founded in 2021, fosters data literacy and science through education, research, and service to the community. In addition, the U.S. Economic Development Administration has designated the Gulf Louisiana Offshore Wind Propeller (GLOW), a consortium that includes Tulane University, as one of its 31 new Tech Hubs. Scientists, researchers, and scholars from Tulane's School of Science and Engineering, the A. B. Freeman School of Business, and the Tulane Center for Energy Law will all play a role in the Tech Hub. In partnership with Louisiana State University, Tulane University has been awarded \$22 million by the National Academy of Science, Engineering, and Medicine to lead a 15-member consortium, the Mississippi River Delta Transition Initiative, to chart a new course for the Lower Mississippi River Delta and its fragile ecosystem.

Steadfast in its commitment to innovation, Tulane's downtown campus is home to the <u>Tulane Innovation</u> <u>Institute</u>, which acts as a combined technology and startup accelerator for faculty, researchers, staff, and students, as well as community members. By carefully assessing and investing in the commercial potential of basic and applied research, the Tulane Innovation Institute will "de-risk" discoveries and provide earlystage funding necessary to propel ideas to the next level – ultimately bringing new ventures to market, all while economically diversifying Greater New Orleans for future generations. Tulane also recently established the Tulane Ventures Fund, a \$10 million fund to support business startups by women and minority entrepreneurs in New Orleans. These important efforts will help to transform the university's technological and entrepreneurial enterprises and will have a long-standing impact on the regional economy.