

An invitation to apply for the Position of

# Founding Dean of the College of Connected Computing Nashville, Tennessee

"Of all the factors shaping society, few are more influential than the rapid emergence of advanced computing, AI, and data science. To continue to carry out our mission, prepare all our students for their careers, and advance research across the university, Vanderbilt must contribute even more to the study, understanding, and innovative application of these fast-changing disciplines. Our aim is to make Vanderbilt a global leader in these fields, ensuring our continued academic excellence and capacity for world-changing innovation."

— Daniel Diermeier, Chancellor

### THE SEARCH

Vanderbilt University, globally renowned for its transformative education and research, seeks an innovative leader and accomplished scholar to serve as the inaugural dean of a new College of Connected Computing, the university's first new college since 1981. Vanderbilt is forging a bold and distinct strategic path to meet the growing demand for degrees in technological fields and advance research in rapidly evolving computing-related disciplines. The inaugural dean will be afforded the unique opportunity to establish an interdisciplinary and cross-cutting college in an ambitious academic community focused on excellence, innovation, and bold ideas, as evidenced by the university's motto, *Crescere aude* or "dare to grow."

The new College of Connected Computing will collaborate with all of Vanderbilt's schools and colleges to advance breakthrough discoveries and strengthen computing education through a "computing for all" approach. Students will have the opportunity to learn and practice a fundamental set of core computing, analytics, data science, and Al competencies relevant to their disciplines and be positioned to leverage advanced computing effectively to address some of society's most pressing challenges. The new college will be resourced by a significant start-up investment to support the founding dean's work to shape and design the organizational structure as the college evolves over time, which will include the hiring of new faculty and staff during the college's foundational years. This will allow the university to expand on its groundbreaking discoveries at the intersections of computing and other disciplines and contribute even more to the study, understanding, and innovative application of fast-changing computing disciplines.

The founding dean will establish a college that aims to safeguard Vanderbilt's robust reputation for academic excellence, radical collaboration, and capacity for world-changing innovation. Working in



partnership with colleagues throughout the university, the founding dean will build upon Vanderbilt's strong programs to catapult the university to the forefront of breakthrough discovery and innovation in key areas of computing across a wide range of disciplines that capitalize on advanced computational methods. In launching this new college, the inaugural dean will provide students with the highest-caliber educational opportunities at the intersection of these pathbreaking fields. The dean will advance a vision for connected computing at Vanderbilt and position the college as a hub of university collaboration and innovation through active listening and communication, managerial sophistication, financial acumen, interpersonal and political skills, effective fundraising, and commitment to inclusion and shared governance.

A search committee has been formed and will be supported in this recruitment by Isaacson, Miller, the national search firm. Confidential inquiries, nominations, and applications may be directed to the firm as indicated at the end of this document.

### **VANDERBILT UNIVERSITY**

Vanderbilt University, located in Nashville, Tennessee, is a top-15 private research university offering a full range of undergraduate, graduate, and professional degrees. Created in 1873 from an initial \$1 million gift from Cornelius Vanderbilt, who envisioned a school that would "contribute to strengthening the ties that should exist between all sections of our common country," Vanderbilt is situated on a 330-acre campus near the thriving city center, serving more than 13,000 students and employing almost 7,000 faculty and staff.

Launched in 2020, Destination Vanderbilt was a \$100 million initiative to recruit leading faculty and address contemporary challenges. Over a period of four years, the university leveraged the investment to recruit faculty who are leaders and rising stars in their fields. The initiative significantly bolstered the computer science faculty, adding over 30 new members within two years. The announcement of an undergraduate minor in data science in 2021, followed by the establishment of Computer Science as an independent department within the School of Engineering, underscored the university's expanding focus on computing education.

In October 2022, Provost C. Cybele Raver announced a \$5 million annual investment to enhance graduate education and promote discovery and collaboration, inspire scholarly excellence, and augment student support structures across the university. In the same year, Discovery Vanderbilt emerged as a new venture to drive transformative research and innovation. This led to the creation of several initiatives focused on trans-institutional collaboration, reinforcing Vanderbilt's rigorous and collaborative approach to scholarship and knowledge creation. Discovery Vanderbilt seeks to catalyze the engagement, reach, and impact of scholars' cutting-edge work across all the university's schools and colleges in the fearless pursuit of vital solutions to the world's greatest challenges. Discovery Vanderbilt builds upon Opportunity Vanderbilt and Destination Vanderbilt by committing major resources to increase dramatically faculty,



student, and staff engagement and success in pursuing bold new ideas through disciplined, rigorous inquiry.

In 2022 and 2023, Discovery Vanderbilt made targeted investments, totaling more than \$50 million in the first year, across the schools and colleges to support current research efforts while positioning the university to expand and diversify research activities, innovation, and entrepreneurial scholarship. This initiative continues to commit significant resources to increase faculty, student, and staff success in all parts of the university.

Vanderbilt offers 71 undergraduate majors and a full range of graduate and professional degrees across 10 schools and colleges, including the Blair School of Music, College of Arts and Science, Divinity School, Graduate School, Law School, Owen Graduate School of Management, Peabody College, School of Engineering, School of Medicine, and School of Nursing. The combination of cutting-edge research, strength in the liberal arts, and nationally recognized schools of business, divinity, education, engineering, law, medicine, and nursing creates an invigorating atmosphere where students tailor their educational experiences to meet their goals and where researchers collaborate to solve complex questions affecting health, culture, and society.

Vanderbilt University is one of the core partner universities in association with Oak Ridge National Laboratory (ORNL), the U.S. Department of Energy's largest science and energy laboratory conducting research in energy and security. This relationship offers opportunities for Vanderbilt University faculty, postdoctoral researchers, and students to access ORNL's world-class facilities and develop collaborations with ORNL researchers.

Vanderbilt provides a gateway to greatness, drawing the best and brightest students from all backgrounds across the nation and around the world. Vanderbilt alumni can be found in Congress, on the judicial bench, among the list of Nobel laureates, heading corporations, conducting innovative medical research, writing for and appearing on the stage and screen, and playing in the NFL and major league baseball.

Equity, diversity, and inclusion are top priorities across the Vanderbilt campus. In 2021, a university-wide report underscored Vanderbilt's commitment to expanding dialogue and community partnerships, increasing investments in related programming and infrastructure, and confronting historic racial inequities. The School of Engineering recently launched an Alumni Mentor Network as well as the Fall Early Start Transition (FESTival) program to help build a community for underrepresented and first-generation students as well as strengthening outcomes. The School of Engineering, the Graduate School, the College of Arts & Science, and the Peabody College of Education and Human Development collaborated to develop new courses focusing on neurodiversity for students entering STEM fields, and the Emerging Scholars lecture seminar series hosted early career academics from underrepresented groups in engineering. Vanderbilt's senior leadership is also committed to diversifying faculty and administrative hiring.



The university is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, education specialists and doctoral degrees. Vanderbilt is a member of the Association of American Universities.

### COMPUTING FOR ALL: CONNECTED COMPUTING AT VANDERBILT UNIVERSITY

The idea of "computing for all" is fundamental to the future of learning and essential to Vanderbilt's tradition of academic excellence infused with a unique spirit of collaboration and collegiality. Vanderbilt has made marked contributions to the study, understanding, and innovative application of fast-changing computing disciplines to ensure continued academic excellence and capacity for world-changing innovation. Vanderbilt's roadmap for connected computing reflects the understanding that the future of education, research, and thinking in all disciplines is tied to and influenced by the knowledge and power of computing.

## The Department of Computer Science

Computer scientists at Vanderbilt are actively involved in developing breakthrough technologies, from software for mobile devices to artificial intelligence and machine learning and cybersecurity to smart healthcare systems, that transform every aspect of our lives.

Currently housed in the Vanderbilt University School of Engineering, the Department of Computer Science is home to 80 faculty and supports 550 undergraduate and graduate students. The department's undergraduate and graduate curricula are constantly refined to meet real-world demands and today's rapid changes in technology, with the goal of providing students with the skills required to address the challenges of the 21st century. Prevalent throughout the department is an interdisciplinary approach to teaching and research to enhance the exchange of ideas. Faculty are renowned leaders in their respective fields, extraordinary teachers, and dedicated mentors committed to core values of educational, research, and inclusive excellence.

# **Computer Science Degree Programs**

Graduate Programs. Computer Science M.S. and Ph.D. degree programs are structured around computing foundations, computer and network systems, information and intelligent systems, and medical image computing, and encourage both fundamental and interdisciplinary research. State-of-the-art facilities that include computational resources, networks, and laboratories are available to support research activities.

Undergraduate Programs. The ABET-accredited Computer Science undergraduate program blends scientific and engineering principles, theoretical analysis, and actual computing experience to provide students with a solid foundation in the discipline. Emphasis is on computing activities of both practical and intellectual interest and theoretical studies of efficient algorithms and the limits of computation.



# **University-wide Research in Computing**

Vanderbilt faculty, research scientists and engineers, and students at all levels engage in leading scholarship and significant research in computing with both industry and government. This research spans across many of Vanderbilt's 10 schools and colleges and includes:

- Software and Systems Engineering
- Cyber-Physical Systems
- Computer Graphics
- Security and Fault Tolerance
- Medical Image Processing
- Robotics and Automation
- Artificial Intelligence and Machine Learning
- Bioinformatics and Computational Biology
- Behavioral and Brain Sciences
- Physics-based Computing and Modeling
- Cyber and Network Security, etc.
- Education and Technology

### Research Institutes

Computing research happens across several interdisciplinary research institutes as part of a high-impact research portfolio. Some key Research Centers and Institutes include:

- Institute for Software Integrated Systems
- Vanderbilt Center for Sustainability, Energy, and Climate (VSEC)
- Vanderbilt Lab for Immersive AI Translation (VALIANT)
- City Innovation through the Vanderbilt Initiative for Infrastructure Connectivity
- Vanderbilt Institute for Surgery and Engineering (VISE)
- Vanderbilt Brain Institute
- Vanderbilt AI Law Lab
- LIVE, the Learning Innovation Incubator

### The Data Science Institute

The Data Science Institute (DSI) was established in 2018, marking a significant commitment to data science education. The DSI is a leading research institution for AI and Data Science studies, whose collaborations with various researchers across many disciplines at Vanderbilt University create lifelong communities and strong relationships at Vanderbilt and beyond. It aims to be known nationally for its diversity and unique emphasis on next-generation models while studying the impact of these models on society and ethics. The Institute's top-ranked education programs provide students with the skills and knowledge necessary to thrive in the ever-changing field of AI and Data Science. The Institute is committed to partnering with local and regional nonprofits to create solutions for social good that positively impact the Vanderbilt



community. The DSI is complemented by a Master's Degree in Data Science and has since facilitated the co-hiring of 12 faculty members, enhancing interdisciplinary collaboration.

The undergraduate minor in Data Science is a unique trans-institutional program that spans all four undergraduate colleges and is affiliated with the Vanderbilt Data Science Institute. Students in Data Science are introduced to the foundations of this interdisciplinary field, with coursework in computer programming, statistics, machine learning, and visualization interwoven with ethical considerations of collecting, curating, analyzing, visualizing, and interpreting data. The minor in Data Science prepares students for advanced coursework in statistics and data analysis, scientific computing and simulation, machine learning and visualization, and high-performance computing and big data. The minor strives to prepare students for unique immersion experiences in basic and applied research, for civic and professional engagement in the public and private sectors, and international experiences in industry, government, or non-governmental organizations. The minor provides a solid foundation for future professions or graduate study in any field that collects, analyzes, models, or interprets data.

### THE COLLEGE OF CONNECTED COMPUTING

Vanderbilt will establish a College of Connected Computing to tackle humanity's most pressing challenges through multidisciplinary discovery and innovation that are powered by computing. The college will be resourced by a significant start-up investment to support the founding dean's work to shape and design the organizational structure of the College of Connected Computing as the college evolves over time. Importantly, the dean will lead the hiring of new faculty and staff to support the college.

The college will forge computing partnerships across all of Vanderbilt's 10 schools and colleges in disciplines from the humanities to music to engineering. This includes the top-ranked Peabody College of Education and Human Development and the highly ranked Owen Graduate School of Management, School of Engineering, Law School, School of Medicine, School of Nursing, and College of Arts and Science, which houses one of the nation's top psychology programs. The College of Connected Computing will leverage Vanderbilt's existing strengths in areas such as behavioral and brain sciences, computational chemistry, and computational biology and build cross-college partnerships with all of Vanderbilt's schools, colleges, departments, centers, and institutes.

A College of Connected Computing Task Force chaired by the Bruce and Bridgitt Evans, Dean of the School of Engineering and University Distinguished Professor Krishnendu "Krish" Roy, has begun work to establish a working mission statement, core values, and pedagogical frameworks for the new college. The Task Force also seeks to inform recruiting pipelines for students, faculty, and staff and identify opportunities for corporate partnerships, hiring, innovation, and start-up opportunities.

During its foundational years, the College of Connected Computing will be embedded in the School of Engineering before transitioning to a standalone college. Its fundamental departments are expected to



incorporate computer science, artificial intelligence, machine learning, data science, computational statistics, computational biology, and bioinformatics.

### KEY OPPORTUNITIES AND CHALLENGES FOR THE FOUNDING DEAN

The founding dean of the College of Connected Computing will report to Provost and Vice Chancellor for Academic Affairs C. Cybele Raver. Initially, the dean will have a dotted reporting line to School of Engineering Dean Krishnendu "Krish" Roy. Vanderbilt expects that after a transitional period of two or three years, the new college will be a fully independent school on par with other schools and as a result the dotted reporting line will end.

Advance a bold vision to establish a cross-cutting, horizontally integrated College of Connected Computing.

The dean will have the rare opportunity to envision and establish from the ground up a new college within a highly selective research university that meets the needs of our time. The college will develop a new paradigm for the future of computing education and research across Vanderbilt by collaborating with thought leaders from all disciplines and partnering with industry and government experts to understand the needs and skills of the future. The founding dean will work with leaders and colleagues across Vanderbilt to establish a cross-cutting, horizontally integrated college serving all disciplines, including undergraduate, graduate, and professional education.

Identify, pursue, and capitalize on opportunities for interdisciplinary research, programming, and collaboration across the new college, the broader university, and beyond.

Vanderbilt is fundamentally a vibrant intellectual community that values free expression and civil discourse, mutual respect and support, and organizational citizenship and service. The founding dean will find a campus eager to partner. The founding dean will embark on university-wide planning efforts to optimize how the College of Connected Computing's operations intersect with and support those of the University and how the University's efforts will enable the new college. The founding dean will quickly work to develop networks across campus to attract interest and engagement with faculty and formulate a strategy to utilize and leverage both data and domain expertise.

Foster a diverse founding faculty and staff that quickly establishes the credibility and reputation of the college.

The founding dean will lead with transparency, collegiality, and respect for every individual's contribution to the new college's success. The founding dean will lead the hiring of faculty and staff to support the new college, working closely with other Vanderbilt deans, as some faculty are expected to have cross-appointments with other schools. The college's founding faculty will bring disciplinary expertise and a deep appreciation for interdisciplinary collaboration to drive excellence across the university.



# Strengthen and expand local, regional, national, and global partnerships to increase visibility and impact.

The founding dean will engage and partner with industry leaders, extending invitations for them to join cutting-edge university research and contribute to innovative and interdisciplinary initiatives. The dean must be a visible leader in the technology sector who can ensure that Vanderbilt is responsive to the needs of government and business leaders. Vanderbilt should join the economy of computing as a partner and inventor, fostering current relationships and forging new ones to bolster the computing economy nationally and locally in the Nashville area.

# Attract and grow resources for the new college.

Vanderbilt is now in the public phase of the Dare to Grow fundraising campaign. The dean will prioritize continued attention to university fundraising efforts and will effectively communicate the College of Connected Computing's capabilities and successes institutionally, locally, and globally, building the university's reputation and creating opportunities for the new college.

The founding dean will seek to establish connections to local, national, and international corporations of all sizes, as well as startups, as a means to initiate new opportunities for its students and faculty and increase revenue streams to the college. The dean's office works with faculty to increase funding opportunities for scholarly and student activities with state, government, and trade associations to advocate for incentives and policies that advance the mission of the college.

# Champion and enhance a climate of diversity, equity, and inclusion.

The founding dean will need to possess a deep understanding and fierce commitment to diversity, equity, and inclusion, including an acute sense of the particular challenges in the field of computer science. This will lead to a focused effort on recruitment and retention of both women and underrepresented groups at all levels. An active listener, the dean will also foster a community-centric culture that is welcoming and supportive of all faculty, staff, and students. The dean will set the tone for an inclusive climate within the school that promotes and nurtures the success and development of the entire community, encouraging and incentivizing collaboration across the school.

# Establish organizational processes and efficiencies and effectively manage and steward finances.

The founding dean will establish the operational structure and team to achieve its aspirations. In addition, the dean will create the internal systems and processes necessary to support a modern, world-class academic unit that is nimble and has the ability to respond to emerging opportunities. The founding dean will appreciate Vanderbilt's collaborative spirit and recognize the inherent power and advantages of shared governance. They will demonstrate active listening, open communication, transparency, clarity,



and equity in relationships. In decision-making, the founding dean will be principled and forthcoming and, in difficult conversations, courageous and forthright.

### **QUALIFICATIONS AND CHARACTERISTICS**

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

- An earned doctorate or terminal degree in computer science or closely related fields, as well as a
  record of scholarship appropriate for leadership of a distinguished college in a major university,
  with an appointment as a tenured full professor.
- A track record of entrepreneurial and collaborative intellectual leadership. Demonstrated success in communicating and implementing new ideas collaboratively. Clear evidence of ability to translate strategy into action. Intellectual curiosity and informed engagement.
- Commitment to academic excellence. Passion for supporting creative expression and discovery.
   Demonstrated success in strengthening academic programs and research. A record of embracing and encouraging multidisciplinary work and evidence of collaboration with partners across campus.
- **Demonstrated record of commitment to equity, diversity, and inclusion.** A history of success in achieving a more inclusive and equitable community of scholars, staff, and students.
- **Superb management, planning, and financial skills.** Excellent organizational skills. Ability to establish clear frameworks for decision-making. An understanding of and interest in finances and the interplay of academic programs, resource requirements, including staffing and compensation, market interest, and revenue generation, including fundraising.
- Courageous leadership. Evident orientation toward broad consultation and active listening. Willingness to take on difficult issues, mediate disagreement, and act. Commitment to working through shared governance, faculty engagement, transparency, and open communication.
- Excellent communication skills, oral and written. Demonstrated talent for inspiring enthusiasm, energizing supporters, and influencing and motivating others. Skill and drive to advance the philanthropic goals of the college. Proven ability to formulate and advance arguments in support of initiatives. Ability to articulate decisions consistently and clearly, with tact and diplomacy.
- Professional and personal qualities: Commitment to the mission, purpose, values, and ideals of Vanderbilt University. Ability to inspire confidence. Resourcefulness. Bias to innovate, experiment, and act. Optimism, resilience, persistence, willingness to learn and reflect, and humility. Integrity of the highest order.

# APPLICATIONS, INQUIRIES, AND NOMINATIONS

Confidential inquiries, applications, and nominations may be sent in confidence to:

John Muckle, Partner



Katie Rockman, Partner
Karen McPhedran, Managing Associate
Amy Gillespie, Senior Associate
Isaacson, Miller

Vanderbilt University College of Connected Computing Founding Dean Search

Vanderbilt University is an equal opportunity, affirmative action employer. Women, minorities, people with disabilities and protected veterans are encouraged to apply.

### ADDITIONAL ESSENTIAL INFORMATION

### **UNIVERSITY LEADERSHIP**

**Daniel Diermeier** is the ninth chancellor of Vanderbilt University. He joined Vanderbilt in 2020 after serving as Provost at the University of Chicago and, before that, dean of the Harris School of Public Policy at Chicago. Earlier in his career, he was on the faculty of Stanford and Northwestern universities.

An internationally renowned scholar of political science and managerial leadership, Diermeier has launched several ambitious initiatives at Vanderbilt, including Destination Vanderbilt, a bold commitment to recruit and hire stellar faculty at an increased rate, and The Vanderbilt Project on Unity and American Democracy, which seeks to elevate evidence-based reasoning in the national conversation. During his tenure, the university also launched Vandy United, a \$300 million fundraising campaign focused on Vanderbilt student-athletes, athletics programs, and Commodore fans, the largest undertaking of its kind in the university's history.

A first-generation college graduate, Diermeier earned a PhD in political science from the University of Rochester. He also holds master's degrees in political science from the University of Rochester and the University of Munich and a master's degree in philosophy from the University of Southern California. In 2013, he was elected a fellow of the American Academy of Arts and Sciences as a political scientist and game theorist.

**C. Cybele Raver** serves as the Provost and Vice Chancellor for Academic Affairs at Vanderbilt University. An esteemed developmental psychologist whose leadership has spanned research, academic, and administrative settings, Raver oversees all faculty, staff, programs, and initiatives for Vanderbilt's 10 schools and colleges. Raver is a fellow of the American Association for the Advancement of Science and is the Cornelius Vanderbilt Professor of Psychology and Human Development at Peabody College.

Before her tenure at Vanderbilt, she was deputy provost at New York University. She has held faculty positions at the University of Chicago's Harris School of Public Policy and Cornell University's Department of Human Development. Throughout her career, she has received prestigious awards from the American



Psychological Association and the William T. Grant Foundation and has been granted support from the MacArthur Foundation, the National Institutes of Health, the National Science Foundation, and the Spencer Foundation, in which she garnered more than \$24 million in funding.

### **ABOUT NASHVILLE**

As the hub for several booming industries, the home to a global community – including the nation's largest Kurdish population – and "America's friendliest city" according to *Travel + Leisure* magazine, Nashville combines history and hospitality with diverse culture and growth.

Tennessee's capital is also an international destination for the arts, entrepreneurship, and scientific research, thereby attracting world-renowned scholars to Vanderbilt and the broader community. In turn, it's no surprise that many students, families, and professionals choose to call Music City home.

Major regional industries include many key future strategic partners for the College of Connected Computing, such as healthcare management and IT, automotive production, manufacturing, and technology. The new college will have the opportunity to leverage the School of Engineering's ongoing relationships locally with Nissan, Amazon, and Oracle and is facilitating additional relationships across the city. Nashville has been named one of the 15 best U.S. cities for work and family by *Fortune* magazine, was ranked as the #1 most popular U.S. city for corporate relocations by *Expansion Management* magazine, and was named by *Forbes* magazine as one of the 25 cities most likely to have the country's highest job growth over the coming five years, making it the perfect backdrop for VUSE's Smart Cities integrated systems research.

Nashville is home to more than 100 stand-alone parks and a quick drive from the Great Smoky Mountains, offering many opportunities to enjoy the great outdoors. In addition to the nearby greenways, scenic hiking routes, and historic riverfront, the Vanderbilt campus is itself a top outdoor attraction. An accredited arboretum, the university campus has over 6,000 trees and shrubs, including nearly 200 species.

## **Industry Partnerships**

Large, institutional-level relationships are being developed between Vanderbilt and Nissan, Amazon, and Oracle. Prospective relationships are also being explored with Capgemini and Ford. Additionally, Vanderbilt is strengthening its relationship with the metro government of Nashville to expand research opportunities on Civic Innovation Challenge (CIVIC)- related projects directly related to smart and connected cities and other infrastructure.

Notably, Nashville has become an attractive metropolitan area for corporate expansion and relocation. Over the next five years, six companies are expected to create over 30,000 new jobs in the metro area. This growth exceeds the normal corporate growth that a major city experiences in a good economy.

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Vanderbilt leadership meets regularly with the Nashville Technology Council and its advocacy committee, the state economic and community development office, and the Chamber of Commerce to provide input on workforce development and corporate partnership opportunities.