#### SOUTH DAKOTA BOARD OF REGENTS

#### **Academic and Student Affairs**

#### AGENDA ITEM: 6 – E (1) DATE: April 3-4, 2024

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#### **SUBJECT**

#### New Program Request - DSU - MS in Artificial Intelligence

#### **CONTROLLING STATUTE, RULE, OR POLICY**

<u>BOR Policy 2.3.2</u> – New Programs, Program Modifications, and Inactivation/Termination <u>BOR Policy 2.3.3</u> – External Review of Proposed Graduate Programs

#### **BACKGROUND / DISCUSSION**

Dakota State University (DSU) requests authorization to offer a MS in Artificial Intelligence. The proposed MS would combine business, agribusiness, leadership, and artificial intelligence-informed business analytics classes to produce professionals and entrepreneurs with the knowledge to drive decisions with data, understand the agribusiness environment, and lead organizations in the challenging and dynamic world of agriculture.

The Executive Director approved the Intent to Plan, which the Board was notified of at the <u>August 2023</u> meeting. Per BOR Policy 2.3.3, an external review of the program was conducted, and the final report of the reviewers was received by the Board office. The report, along with DSU's response to the report, are included in Attachments II & III.

#### IMPACT AND RECOMMENDATION

A summary of the program proposal has been included as Attachment I. Additional information on this proposal is available from the Board office by request.

#### ATTACHMENTS

Attachment I – New Program Request Summary: DSU – MS in Artificial Intelligence Attachment II – External Review Report Attachment III – DSU External Review Response Attachment IV – Industry Letters of Support

#### **DRAFT MOTION 20240403\_6-E(1):**

I move to authorize DSU to offer a MS in Artificial Intelligence, as presented.

#### Full Proposal – MS Artificial Intelligence Dakota State University

**BOR Recommendation:** The Board of Regents Academic Affairs and the Executive Director support the program request. This program will increase the number of conferred advanced STEM degrees in South Dakota while supporting existing industrial sectors.

#### **Program Description:**

The Master of Science in Artificial Intelligence (MSAI) program is for students who desire to acquire advanced knowledge in the rapidly growing field of AI (Artificial Intelligence). The program is designed to teach students the core foundations of the field by providing a comprehensive curriculum of the core components of AI, including computer science, mathematics & statistics, and current AI models and frameworks, which will allow them to create practical applications for various industry and academic purposes. With new AI technologies appearing yearly, this program is designed to provide the foundations needed to be successful and agile enough to bring new and emergent technologies to students.

#### Strategic Impact -

**DSU Strategic Impact:** The MSAI program fits squarely with DSU's mission statement and strategic plan. Under SDCL 13-59, the primary purpose of Dakota State University is to provide instruction in computer management, computer information systems, electronic data processing, and other related undergraduate and graduate programs. The field of artificial intelligence falls directly into this description. DSU's Cyber 27 [1] initiative looks to establish the university as the top cyber program in the country. A.I. is the point of the spear in leading this initiative of introducing new and innovative programs. Not only will the MSAI program be a great asset for the students pursuing it, but it will also help us set a cornerstone to add components of AI to other existing programs, helping fulfill the AI for All philosophy.

**BOR Strategic Impact:** The Board of Regents' mission is to provide an excellent, efficient, accessible, equitable, and affordable public university and special schools system that improves South Dakota's overall educational attainment and research productivity while enriching the intellectual, economic, civic, social, and cultural life of the state, its residents, and its communities. It goes on to say that the public university and special schools system will educate more individuals at higher levels to enhance state workforce development and increase research into viable businesses, supporting state economic development.

This program aligns with the Board's Strategic Plan by providing the education needed to create the future AI-related workforce necessary to compete on both the national and international levels. AI-related job openings are numerous and expected to grow in the short and long term. By offering the program on campus and online, the proposed MS in Artificial Intelligence will meet the needs of rural students and those from other regions. Additionally, this program will help meet the demand for graduates equipped to serve as research engineers employed by the Applied Research Corporation in Sioux Falls.

#### **Program Summary:**

The classification of this program will be 11.0102 [Artificial Intelligence and Robotics]. This program is proposed to be offered both on-campus and online. Students accepted into the M.S. in AI will be required to have some programming experience, where a scripting language such as

Python or R is sufficient, along with calculus and statistics. Students may not necessarily have a strong technical background and may have bachelor's degrees from an Arts & Sciences field, such as Philosophy, Social Sciences, or Linguistics. This allows students who learn AI to apply it to the fields related to their background.

#### **Duplication and Competition:**

While no other public South Dakota university currently offers an MS in Artificial Intelligence, USD has also submitted an intent to plan for an MS in Artificial Intelligence. Both Dakota State University and the University of South Dakota currently offer AI specializations as part of their Computer Science MS degree programs. DSU intends to keep its AI specialization in Computer Science in addition to adding the proposed MS in AI detailed in this document.

The Integrated Postsecondary Education Data System (IPEDS) for 2022-2023 reporting shows that South Dakota produced a total of 117 masters-prepared graduates in related fields.

University	Master's Degrees Conferred in Computer and	Total Number of Master's Degrees Conferred at Each			
	Information Sciences,	Institution			
	General				
DSU – MS Computer Science	64	149			
USD – MS Computer Science	45	530			
SDSU – MS Computer Science	1	334			
SDSMT – MS Computer Science	7	131			
and Engineering					

#### **Regental Universities**<sup>1</sup>:

#### **Private SD Universities<sup>2</sup>:**

	Master's Degrees Conferred in Computer and Information Sciences, General	Total Number of Master's Degrees Conferred at Each Institution
None	0	

#### **Total Sum of SD Peer Findings:**

University	Master's Degrees Conferred in Computer and Information Sciences, General	Total Number of Master's Degrees Conferred (All SD Universities)				
Total	117	1144				

The number of conferred master's degrees in related fields, specifically Computer and Information Science (General), as reported by IPEDs was 117 out of a total of 1144 for all of South Dakota.

<sup>&</sup>lt;sup>1</sup> Integrated Postsecondary Education Data System (IPEDS) for 2022-2023

<sup>&</sup>lt;sup>2</sup> Integrated Postsecondary Education Data System (IPEDS) for 2022-2023

This is approximately 10% of the total number of master's degrees awarded. The opportunities for students with advanced degrees in these fields exceed the current number of degrees awarded.

#### **Competitor University Peers<sup>3</sup>:**

Unlike the tables above, this table reports MS degree conferrals specifically in Artificial Intelligence.

University	Master's Degrees Total Number of Master's			
	<b>Conferred in Artificial</b>	Degrees Conferred at Each		
	Intelligence	Institution		
Northwestern University	41	5335		
Carnegie Mellon University	178	4339		
Minnesota State University,	52	3226		
Mankato				

#### Workforce Outlook/State Need:

There is state-level, national, and international demand for skilled personnel in Artificial Intelligence.

Regarding specific careers, job titles include (but are not limited to): Machine Learning Engineer, Data Analyst, Data Scientist, AI/ML Researcher, and Software Engineer. These jobs provide distinct roles to help firms make scientific or data-driven decisions or automate tasks to reduce costs or scale products, create physical automated bots for a myriad of purposes, or provide research into new applications. These services pertain to nearly all industries.

In South Dakota, the biggest player in the economy is agriculture. Research and deployment of AI software and robotics will be key to increasing crop and livestock production and operational throughput. Also, AI is used in many areas of medical research, which ties into Sanford and Avera hospitals in the region. Dakota State University has recently formed an academic and research partnership with CNH, further strengthening opportunities for internships and careers.

It is important to note that many new jobs for which an MS in AI would be appropriate are also new enough that they are not listed on the South Dakota Department of Labor's website or the U.S. Bureau of Labor Statistics (BLS). These types of positions include Machine Learning Engineers, Data Scientists, and Applied AI Specialists.

Pay for these jobs is also fairly high, with averages ranging from \$97,850 for AI software engineers to \$134,449 for machine learning engineers.

The latest Annual Report of South Dakota Job Placement Outcomes mentions Artificial Intelligence directly with the following information.

CIP Code: 11.0102 CIP Title Degree: Artificial Intelligence # of Graduates: N/A # of Graduates Earning Wage in SD: N/A # of Jobs Held by Graduates Earning Wages in SD: N/A Average Annual Wage: \$99,181

<sup>&</sup>lt;sup>3</sup> IPEDS, 2022-2023

Consolidating all artificial intelligence-related jobs, there has been a steady increase in job postings, while the number of applicants has slightly decreased. At a Beacom Advisory Board meeting, industry leaders in the region explicitly stated the need for AI-capable workers now, with expectations for additional demand in the future. The AI Edge Summit held in Sioux Falls in October of 2023 also illustrates the need for AI-capable workers in our region.

#### **Student Learning Outcomes:**

- 1. Analyze the fundamental current algorithms of Artificial Intelligence.
- 2. Describe the underlying methodologies (mathematical and statistical) needed for modern AI algorithms and models.
- 3. Apply AI techniques to solve real-world problems.
- 4. Make ethical Artificial Intelligence development decisions.

The outcome for graduates of the program will be assessed by (1) midterm, final, and comprehensive exams, (2) course projects, (3) course papers, and (4) employment and placement rates,

#### **Projected Enrollment:**

	FISCAL YEARS*							
	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year		
ESTIMATES								
Students new to the university	2	5	7	8	10	12		
Students from other university programs	5	1	1	1	1	1		
Students off-campus or distance	3	9	12	16	19	22		
continuing students		5	7	9	11	13		
Total students in the program (fall)	10	20	27	34	41	48		
Program credit hours (major Courses)**	240	426	576	726	876	1026		
Graduates	5	13	18	23	28	33		
*Do not include current fiscal year. **This is the total number of credit hours generated by stu					<u> </u>			

\*\*This is the total number of credit hours generated by students in the program in the required or elective program courses. Use the same numbers in Appendix B – Budget.

Estimates are based on trends seen in increased enrollment in DSU's MSCS – AI Specialization and undergraduate Bachelor of Science in AI programs. The MSCS program, including specializations, tends to have 1/3 of students full-time on campus and 2/3 of students through online delivery.

The Fall 2023 enrollment numbers in related DSU master's programs also informed these estimates.

M.S. Computer Science: 59 enrolled

M.S. Cyber Defense: 64 enrolled

M.S. Information Systems: 63 enrolled

The M.S. Computer Science AI specialization, first offered in the summer of 2022, also helps inform the first-year projections for the proposed MS in AI. The M.S. Cyber Defense program was first offered in 2018 and helps give a 5-year estimated projection of what expected enrollment.

#### **Projected Revenue/Expenses:**

FINANCIAL HEALTH SUMMARY							
	1st	2nd	3rd	4th	5th	6th	
	FY25	FY26	FY27	FY28	FY29	FY30	
TUITION & FEE REVENUES	122,490	217,420	293,976	370,532	447,089	523,645	
PROGRAM EXPENSES	152,909	132,909	257,818	257,818	257,818	257,818	
NET (T&F REVENUES LESS PROGRAM EXPENSES)	(30,419)	84,511	36,158	112,714	189,271	265,827	
OTHER SUPPORTING REVENUES	30,419	-	-	-	-	-	
NET AFTER OTHER SUPPORTING REVENUES	-	84,511	36,158	112,714	189,271	265,827	

Two new faculty are requested to contribute to the MSAI program. DSU estimates that 17 full-time students (or equivalent FTE) will be needed to break even, assuming two faculty and a program coordinator stipend.

## Review of the Proposed Master of Science in Artificial Intelligence Program at Dakota State University

Date: 2/8/2024

#### **Executive Summary**

I have thoroughly examined the proposed Master of Science in Artificial Intelligence (MSAI) program at Dakota State University (DSU). My assessment involved a comprehensive review of documents provided by DSU, as well as virtual interviews with university and college leadership teams and faculty members directly engaged in shaping the program. The proposed MSAI program is a timely response to the pressing demand for skilled AI professionals in the workforce. I was deeply impressed by the unwavering support demonstrated by DSU's leadership and faculty toward this initiative. In this report, I present an analysis of the program's strengths and weaknesses based on my findings.

#### 1. Program Curriculum

The proposed MSAI program mandates a total of 30 credits. These credits are distributed as follows:

- Required Courses (15 credits):
  - CSC 722 Machine Learning: This course already exists.
  - Four New Courses: These are currently under development.
- Elective Courses (15 credits):
  - CSC 761 Advanced Artificial Intelligence: A newly proposed elective. This course is mandatory for students who lack prior experience in Al.
  - Other Electives: These are drawn from various academic units within DSU.

**Strengths:** The proposed curriculum aligns with the core requirements found in MSAI programs offered by peer institutions. While national accreditation standards for MSAI programs are yet to be established, I believe that the proposed curriculum will empower students with the knowledge and skills necessary to launch successful careers in the field of artificial intelligence. Notably, the inclusion of the "Ethics of AI" course and the Capstone experience enhances the program by addressing critical aspects beyond technical proficiency.

#### **Recommendations for Enhancement:**

a. The proposal indicates that *CSC 761 Advanced Artificial Intelligence* is mandatory for students who lack prior AI experience. However, it does not explicitly outline the criteria for waiving this requirement. To enhance clarity, I recommend incorporating more precise guidelines regarding the types of prior AI experience that would qualify for a waiver. Possible requirements could include: Completion of a relevant

graduate-level AI course; Possession of a master's or Ph.D. Degree in AI-related fields; and A certain number of years of full-time job experience in the AI field.

- b. The MSAI program mandates 15 elective credits, yet only one elective course, *CSC 761*, has been specified, and the remainder are subject to approval by the academic advisor. I recommend that additional details regarding eligible elective courses should be provided. A committee comprising multiple faculty members should be established. This committee's roles would be to define criteria for course approval as electives and periodically review available courses to determine which courses meet the necessary standards. Given that MSAI students enter the program with an undergraduate degree and the core courses will elevate their Al knowledge to the graduate level, elective courses should complement this by broadening their expertise in other relevant fields. To achieve this, the committee should outline a minimum set of knowledge and skills that elective courses must cover. For instance, students might be required to select at least one elective from each of several categories, such as software development, algorithm analysis, and more. (Note: This example is purely hypothetical and not intended as a recommendation for how DSU should categorize their courses.)
- c. The proposed capstone course is envisioned as the pinnacle of the proposed program, serving as the culminating experience for students. Thus, it is imperative to develop appropriate capstone projects that afford students valuable real-world insights. However, according to the information gleaned from interviews, the responsibility for project selection rests with the course instructor and students. While I do not offer specific recommendations for the course's structure, I believe it would be advantageous for both students and faculty to align capstone projects with the College's industrial partnerships or faculty research endeavors. Establishing mechanisms to incentivize faculty participation in supervising students' capstone projects could further enhance the course's effectiveness.

## 2. Faculty

Within the Beacom College of Computer and Cyber Sciences, there are currently three faculty members who specialize in AI-related fields. The standard teaching load for faculty members consists of three courses per semester, with an expectation that 10% of their efforts are allocated to service and 10% to research activities.

**Strengths:** The College intends to recruit a total of 11 tenured/tenure-track faculty members and four lecturers over the next few years. At the time of the interview, the College was in the process of hiring a new assistant professor specializing in AI and plans to recruit at least two more AI faculty members. With the existing faculty and the anticipated new hires, the College is poised to have ample faculty resources to support the proposed courses.

## 3. Services

DSU boasts the Madison Cyber Labs (MadLabs), a 40,000-square-foot facility equipped with cutting-edge resources, including state-of-the-art hardware and a 100 Gbps internet connection, to support researchers' endeavors. The university and college leadership teams wholeheartedly endorse the proposed program. Notably, Dr. José-Marie Griffiths, President of DSU, possesses exceptional expertise and forward-thinking vision in information technology. These resources and steadfast support will contribute to the establishment and maintenance of a high-quality program.

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Dr. Changhui Yan Department of Computer Science North Dakota State University, Fargo, ND



#### Graduate Program External Review Report Response

#### Master of Science in Artificial Intelligence

Dakota State University appreciates the external review conducted by Dr. Changhui Yan of North Dakota State University. His review was quite affirming of the proposed Master of Science in Artificial Intelligence, including our faculty, facilities, resources, planned curriculum, and the vision of our president. Of note was Dr. Yan's belief that the curriculum will empower students with the knowledge and skills necessary for successful careers in AI, particularly due to the inclusion of ethics and research. He believes our recent faculty hires in the area of AI position the university with ample faculty resources to support the proposed courses. Last, he predicted the wholehearted endorsement of the proposed program from university leadership would contribute to a high-quality program.

Dr. Yan offered three recommendations for enhancement of the proposed MS Artificial Intelligence program. A brief summary of each recommendation and DSU's response to each recommendation is as follows:

**Recommendation**: Incorporate more precise guidelines for the waiver qualification for CSC 761.

**Response**: DSU agrees with Dr. Yan's suggestion to provide specific waiver qualifications. The following have been set: Completion of a relevant graduate-level AI course, or possession of a master's or PhD degree in AI-related fields, or a certain number of years of full-time work experience in the AI field.

Recommendation: Establish a process for determining criteria for eligible elective courses.

**Response**: DSU agrees with Dr. Yan's suggestion to develop a committee to define criteria for course approvals as electives. Three experienced faculty members have been identified for this committee.

**Recommendation**: Establish mechanisms to incentivize faculty participation in supervising students' capstone projects.

**Response**: While we appreciate the sentiment to support faculty engagement in student research, Beacom College of Computer and Cyber Science faculty are already actively engaged with students



in research at the undergraduate and graduate level. They are inherently motivated to do so because it is best for students and do not believe they require incentives. The Beacom College dean and associate dean for graduate programs will monitor this potential issue, but do not anticipate it will provide any barrier to students in the proposed MS Artificial Intelligence program. Ph: (605) 333-1000 sanfordhealth.org



South Dakota Board of Regents:

As part of Sanford Health's leadership team, we wholeheartedly endorse Dakota State University's (DSU) proposed Master of Science in Artificial Intelligence (MSAI) program, especially considering the strategic alliance between Sanford Health of Sioux Falls, SD, and DSU of Madison, SD. This partnership drives innovation, research, and economic development opportunities for South Dakota, aligning seamlessly with the mission and goals of the South Dakota Board of Regents.

The MSAI program directly supports the Board of Regents' mission to provide excellent, efficient, accessible, equitable, and affordable education by addressing the critical need for a skilled AI workforce. Through this program, students will acquire essential skills, including analyzing fundamental AI algorithms, understanding mathematical and statistical methodologies, applying AI techniques to solve real-world problems, and making ethical AI development decisions. These competencies not only prepare students for dynamic careers but also contribute to the state's intellectual, economic, civic, social, and cultural vitality.

Moreover, by offering the program both on campus and online, DSU ensures accessibility for students from diverse backgrounds, fulfilling the Board of Regents' commitment to inclusivity in education. Additionally, the MSAI program meets the demand for AI professionals, supporting state economic development goals and providing opportunities for graduates to engage in research and innovation efforts, such as those at the Applied Research Corporation in Sioux Falls.

In conclusion, we urge the South Dakota Board of Regents to endorse DSU's proposal for the Master of Science in Artificial Intelligence program. Through the Strategic Alliance between Sanford Health and DSU, this program not only addresses the state's workforce development needs but also positions South Dakota as a hub for AI education and innovation.

Thank you,

Brad Reimer Chief Information Officer

Our Mission: Dedicated to the work of health and healing



John Jorgensen VP - Chief Security Officer 7001 Mount Rushmore Road Rapid City, SD 57702 P: 605-415-6292

March 20, 2024

Re: DSU MSAI program proposal

Dear Board of Regents:

As you may be aware, DSU is proposing a new Master of Science in Artificial Intelligence (MSAI) program for students seeking advanced knowledge in the rapidly growing field of Artificial Intelligence (AI). I am in full support of DSU's proposal to developing a very critical talent pipeline for industry. From a Security perspective AI represents both an existential threat and a savior. The bad actors are developing their capabilities and making investments without the limitations of ethics and regulation so, we had better get ahead of this threat. We must have the talent needed to figure out how this novel technology can be developed for the good of society and to defend against it being used against us. AI will quickly become a way to effectively scale nearly anything good or bad. DSU had an amazing track record of building effective programs by listening to industry and this program will be no different.

In closing, your approval of this program will have a very positive impact on National Security and the protection of Critical Infrastructure by developing this very critical talent pipeline.

Sincerely,

John Jorgensen Black Hills Energy VP - Chief Security Officer

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# LETTER OF SUPPORT

Dear South Dakota Board of Regents,

## Subject: Letter of Support for DSU's proposed Master of Science in Artificial Intelligence (MSAI) program

We are writing to express SBS CyberSecurity's strong support for Dakota State University's proposed new Master of Science in Artificial Intelligence (MSAI) program. This program will provide students with advanced knowledge in the rapidly growing field of Artificial Intelligence (AI) and will be of great value to DSU and the community.

DSU has a long history of technology innovation, with over 40 years of experience since its mission change. The university has consistently demonstrated its strengths in this area, and the introduction of an MS in AI program is both on-brand and will further enhance its reputation as a leader in technology education.

The benefits of introducing this program to our community are numerous. The MSAI program will provide an excellent opportunity for both current and prospective students to gain advanced knowledge and skills in AI, a field that is becoming increasingly important in today's world. This new program will significantly benefit our local community, the State of South Dakota, and the nation as a whole.

SBS CyberSecurity, a company that employs over 25 DSU alums, including both SBS cofounders and partners, strongly supports DSU. Since growing our roots during DSU's very first Masters of Science in Information Assurance (MSIA) program, SBS has maintained a close relationship with DSU. SBS and its employees contribute a great deal of time, resources, and dollars towards DSU's CybHer and entrepreneurship programs and serve on DSU's advisory board for cybersecurity programs and curriculum, the Cyber Security Industry Advisory Board (CSIAB).

As an organization that is completely bought into the idea that Artificial Intelligence will revolutionize the world (and use AI heavily ourselves), SBS firmly believes that the introduction of the MSAI program at DSU will provide an excellent opportunity for students and will greatly benefit our community. We urge you to support this proposal and help DSU continue its tradition of technology innovation.

Sincerely,

Jon Waldman President, Co-Founder, DSU Alum (2004 and 2006) SBS CyberSecurity, LLC



20 March 2024

South Dakota Board of Regents 306 E Capitol Ave, Suite 200 Pierre, South Dakota, 57501, USA

I am writing to you to express our strongest support for the establishment of the Master of Science program in Artificial Intelligence at Dakota State University (DSU).

Our ongoing partnership with DSU has always been a testament to President Griffiths' visionary leadership and the university's commitment to academic excellence. It is indeed no surprise to witness DSU's continuous growth and innovation, especially with the introduction of this highly important AI program.

The proposed Master's degree in Al is not only an important step in the field of technical education but also a significant opportunity to strengthening the collaboration between the academic and industrial ecosystem in South Dakota and its Swedish counterparts. particularly in light of Sweden's recent accession to NATO. As new NATO allies, our shared dedication to enhancing security and defense capabilities through technological innovation is more prioritized than ever.

DSU, with its expertise in AI and academic leadership, stands out as an exemplary institution for nurturing the next wave of AI professionals. The university's focus on interdisciplinary research and its commitment to experiential learning seamlessly aligns with AI Sweden's mission to accelerate AI adoption in critical sectors such as automotive, forestry/agriculture, and health. Our recent summer collaboration is a shining example of the type of synergistic efforts that are not only beneficial but essential in today's fast-evolving AI landscape. This program is a beacon of cross-cultural understanding and practical problem-solving in AI development and implementation.

By launching a Master of Science in Artificial Intelligence, DSU is not only elevating our partnership to new heights but is also contributing significantly to the enhancement of the global workforce in the private, academic, and defense sectors. We at AI Sweden are excited and eager to support this initiative and look forward to the many opportunities this program will unveil for students, the industry, and the broader field of AI.

In conclusion, please accept my sincere endorsement of this initiative. I am confident that this program will not only enrich the academic landscape but also forge a path for meaningful advancements in AI technology and application.

Thank you for your visionary leadership and your commitment to this significant venture. We eagerly anticipate the future successes of the program and our continued collaboration.

Sincerely,

lab Norelli

Mats Nordlund, Ph.D. Director of Al Labs, Al Sweden <u>Mats.norldund@ai.se</u>

Copy: President José-Marie Griffiths, Dakota State University.



Vincent Wolterman Vice President, Cybersecurity Clear Ridge Defense, LLC 5520 Research Park Drive Suite 100 Baltimore, MD, 21228 vince.wolterman@clridge.com 732.693.0869 March 19<sup>th</sup>, 2024

South Dakota Board of Regents 306 East Capitol Ave, Suite 200 Pierre, SD 57501

Dear Members of the South Dakota Board of Regents,

I am writing on behalf of Clear Ridge Defense, LLC, a company specializing in cleared federal contracting, to express our strong support for Dakota State University's proposed Master of Science in Artificial Intelligence (MSAI) program. As a firm deeply engaged in national security and defense, we understand the critical importance of advanced education in artificial intelligence, particularly in the realms of cybersecurity and federal contracting.

DSU's proposed MSAI program is not only timely but also essential in addressing the growing demand for skilled AI professionals in both the private sector and federal government. The program's comprehensive curriculum, which emphasizes the ethical considerations and societal impact of AI, aligns perfectly with the needs of federal agencies and contractors seeking to harness AI for national security, defense, and other critical functions.

The introduction of the MSAI program at DSU will undoubtedly strengthen the university's already impressive reputation as a leader in technology and cybersecurity education. Furthermore, the program will significantly benefit our local community, the State of South Dakota, and the nation as a whole by contributing to the development of a skilled workforce capable of addressing the complex challenges faced by the federal government in the age of artificial intelligence.

Clear Ridge Defense, LLC recognizes the value of partnering with academic institutions like DSU to advance the field of AI and cybersecurity. We believe that the MSAI program will be a vital asset in training the next generation of professionals who will play a crucial role in safeguarding our nation's security and technological superiority.

Thank you for considering this endorsement. We eagerly anticipate the positive impact that the MSAI program will have on our industry and the nation.

Sincerely,

Vincent Wolterman Vice President, Cybersecurity Clear Ridge Defense, LLC



Digitally signed by Wolterman.Vincent.J.ORC302001 5908.ID Date: 2024.03.19 12:17:58 -04'00'

The Clear Choice in Cybersecurity. 5520 Research Park Dr, Ste 100, Baltimore, MD 21228 | www.clridge.com



DEPARTMENT OF THE ARMY HEADQUARTERS UNITED STATES ARMY CYBER CENTER OF EXCELLENCE AND FORT EISENHOWER 419 B STREET, BLDG 29718 FORT EISENHOWER, GEORGIA 30905-5735

March 19, 2024

South Dakota Board of Regents 306 E. Capitol Avenue Suite 2000 Pierre, SD 57501

Members of the South Dakota Board of Regents:

Dakota State University (DSU) sought my comments on the creation of a Master of Science (MS) degree program in Artificial Intelligence (AI). Although I am prohibited by federal regulations from officially endorsing the initiative, I may provide facts that may assist you in your review of DSU's proposal.

As I would state to any university, we recognize the critical role AI performs in defending our nation's security interests. DSU's initiative to offer a specialized degree in AI is not only timely, it is essential for our cyber regional workforce development and addressing the evolving needs of national security. By equipping future leaders with this expertise in AI, the program will empower our defense workforce while cultivating a pipeline of talent skilled in harnessing AI technologies to protect critical infrastructure, secure sensitive information, and ensure the integrity of our digital networks.

If, in your evaluation of DSU's proposed master's degree program, you desire facts about the Cyber Center of Excellence or Fort Eisenhower in general, please let me know.

Sincerely,

Paul T. Stanton Major General, U.S. Army Commanding