DU

**Daniel Felix Ritchie School
of Engineering & Computer Science**

UNIVERSITY OF DENVER

GRADUATE PROFESSIONAL PROGRAMS

Earn Your Master's Degree from the University of Denver!

Data Science
Cybersecurity
Systems Engineering

◆ Advance your career

◆ Learn skills that employers value

◆ Increase your earning power

◆ Small classes

◆ Career Services program dedicated to your success

THE BENEFITS OF BEING A DU GRADUATE STUDENT

Career Development

More than 90% of graduate students have their post-degree plans set within six months of graduation. Career Services supports that success by offering help with the job search process and connections with our network of 160,000 alumni. The Career & Professional Development team is available to support you as a graduate student and for one year after graduation.

International Student and Scholar Services

ISSS is a resource to help international students thrive at DU. Services include academic advising, travel information, assistance with Visa applications and more. ISSS is here to address your unique challenges and help you navigate life in Denver.

Fitness Center

Graduate students have free access to the Coors Fitness Center on DU's campus. Participate in group fitness classes, personal training, open recreation basketball, lap swimming and more!

University Writing Center

The University Writing Center is available to all University of Denver graduate students.

Vibrant, New Community Commons

A central hub for connecting with other students, faculty, staff and alumni. Meet with other graduate students in the Community Commons, home to a Graduate Lounge, Student BIPOC Affinity Lounge and Pride Lounge.

MS in Data Science

Degree offered: MS
Courses: 12 classes, 48 credit hours
Scholarships: No, tuition is heavily
discounted from regular graduate DU tuition.

Program Length: 21 months
Classroom: In-person or online
Tuition: See back cover.
Earn credits for internships.

Job openings in data science will grow by 22% between 2020 and 2030 *(U.S. Bureau of Labor Statistics).*

you will learn

optimization

anomaly detection

ranking algorithms

ensemble models

object detection

web–scraping

- how to construct, validate, and deploy cutting-edge machine learning models
- how to design interactive data visualizations that enable strategic decision-making
- how to build end-to-end projects for real-world situations

Forge connections, build competency, and carve your path in data science.

Why did you decide to enroll in DU's MS in Data Science program?

"I wanted to learn how to implement more specialized data science techniques in my work and really liked that DU's curriculum covered all of the core data science competencies like machine learning and data mining but also provided a solid foundation in statistics/mathematics."

- Emma Bright

MS in Cybersecurity

Degree offered: MS
Courses: 12-15 classes, 48-60 credit hours
Scholarships: No, tuition is heavily discounted from regular graduate DU tuition.

Program Length: 18-24 months
Classroom: In-person
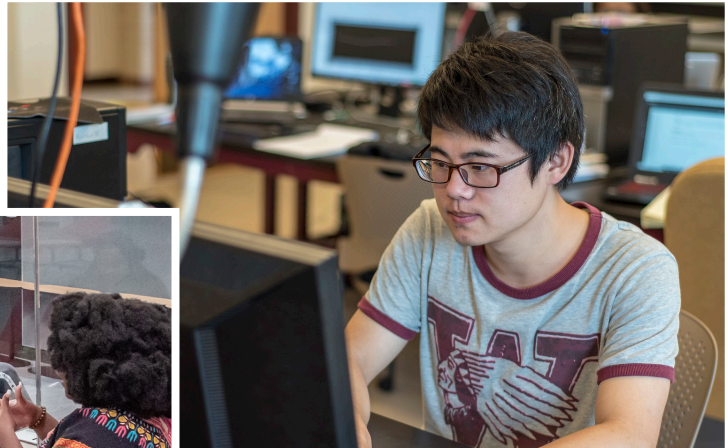**Tuition:** See back cover.

DU is recognized by the National Security Agency and the Department of Homeland Security as a Center for Academic Excellence in Cyber Defense.

Industry experts predict a 35% growth rate in cybersecurity jobs from 2021-2031.

you will learn to

- detect and counter cyber attacks, protect security information systems and infrastructure
- think strategically about cybersecurity issues and to ask the right questions
- apply your skills in the real world with practical, hands-on projects

Graduate ready to work in strategy, programming, and analysis.

From ethical hacking to networking, learn about existing tools and how to build them yourself.

Why did you decide to enroll in DU's MS in Cybersecurity program?

"I wanted to learn more about the technical aspects of cybersecurity and help contribute to the field, but I didn't have a background in computer science so DU's program was perfect!"

- Kathryn Walsh

A previous background in computer science is not required to apply.

MS in Systems Engineering

Degree offered: MS
Courses: 14-15 classes, 48 credit hours
Scholarships: No, tuition is heavily discounted from regular graduate DU tuition.

Program Length: 18-24 months
Classroom: online
Tuition: See back cover.

Previously offered exclusively to a private employer, this new MS degree is now open to the public. It's built upon students earning three stackable certifications.

Certificate #1

Fundamentals of Systems Engineering

Exposure to the guiding principles and best practices of Systems Engineering. Students are prepared to partner with project leaders and stakeholders on needs assessment and requirements development, test planning, trade studies, and benefit-cost analysis.

Certificate #2

Systems Design & Architecture

Learn flow down of requirements to develop implementation and/or design options; conduct trade studies by developing architectural models of these options; prepare down-selection figures of merit for refining architecture and design specifications; draft concepts of operations (CONOPS) to describe use cases and work through design validation activities.

Certificate #3

Systems Analytics & Practice

Learn analytical methods and practical tools of Systems Engineering, such as applying a working knowledge of probability, statistics, and data science: cleansing complex data sets, visualizing patterns in the data, and describing characteristics of data sets to extract system performance insights; applying machine learning techniques, which are paramount to the digital transformation of advanced systems integration; deriving figures of merit required to characterize and to model processes that need improvement; rapidly trace validation and verification test results to system requirements based on statistically relevant quantitative analysis.

Learn relevant and emergent engineering applications.

Graduates will be leaders in any engineering discipline, have increased influence and promotional possibilities.

talk to one of our program reps

Kevin Alt
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Carson Koinzan
Systems Engineering
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ready to apply?

Application materials needed:

☐ Resume
☐ Unofficial transcripts
☐ 2 recommendations
☐ Personal statement
☐ Proof of English proficiency for international applicants

No GRE required!

click here to apply

important dates

May 15th
priority deadline for DS & Cyber

Aug 15th
final deadline

Sept 9th
classes begin!

WHO HIRES DU GRADUATES?

DU's reputation of excellence precedes you. Help build the legacy with your MS!

Here is the list of employers hiring our Data Science Graduates.

Advanced Onion, Inc.	Highmark Health	Sanborn
Altomni Corp	ICATT	Savvy Stack, Inc.
Amazon Lab126	Insight Global, LLC	Symphony MediaAI
American Da Tang Group Co. Ltd	Inspur	ToolCASE LLc
Amys Accounting, Inc.	Invitae	Turn to Data
Avanade	Kax Technologies	UDR, Inc.
C.H. Robinson Worldwide, Inc	KPMG	University of Iowa
Capstone Partners	Lockheed Martin	Vail Resorts
Catapult Systems	Mayo Clinic	Vendavo, Inc.
Charles Schwab Corporation	MessengerHawk	VF Corporation
Charter Communications - Spectrum	Nordstrom	Walmart
Charter School Growth Fund	Opeeka	Wiland, Inc.
Cognizant	Open Technology Solutions, LLC	Wisely Labs Inc.
Colorado School of Mines	Oracle NetSuite	Workday
Digible, Inc	Proinnova Information Technology	Zayo Group
Electronic Arts-EA	S&P Global	
Fannie Mae	Saint.Finance	

Here is the list of employers hiring our Cybersecurity Graduates.

Applied Trust	L2NL	Quyet Tan Nguyen
Charter Communications - Spectrum	Lockhead Martin	TruKno (Truth Through Knowledge)
Cigna	Micro Center	TTEC
DarkOwl Cybersecurity	OnePlus	Western Union
Denver Public Schools District	Pronghorn Solutions	Xcel Energy
Finalsite	QualitrolTech, Inc	Zoom Video Communications

Does your company need to be more competitive?

Does your career need a jump-start?

DU graduates possess cutting edge skills employers want. The Ritchie School offers students a pathway to their future. Opportunity comes from studying at a private school focused on the public good. Students enjoy small classes designed by experts in their field, career support, and a strong alumni network.

What You'll Find in a DU Master's Degree

The Ritchie School of Engineering and Computer Science is preparing the next generation of innovators to find solutions to some of the world's most challenging problems.

Data Science Programs - With technology in a state of constant evolution, the ability to access, understand and analyze data is essential for any company to stay ahead of the curve. Get the tools to succeed, no matter where you work.

Cybersecurity Program - Technology enhances our lives while threatening the safety of personal information and confidential data. Learn how to think strategically, ask the right questions and address cybersecurity challenges in any context.

Systems Engineering - Previously offered exclusively to a private employer, this program is now open to the public. This new multidisciplinary degree fuses engineering knowledge, project management, and best practices in integrated engineering approaches to strengthen leadership skills.

Find out more about tuition here!