



INNOVATION AND PARTNERSHIPS
VIRGINIA TECH

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Harnessing the power of AI

The sky's the limit when it comes to artificial intelligence. But reaching new heights - and sustaining them - in a fast-evolving field requires stakeholder confidence and innovative talent. Virginia Tech is leading the charge for both.

Like an AI system, Virginia Tech builds on experience. We're discovering exciting applications for AI every day as we break down academic silos and work together toward sustainable solutions.

We're creating a new kind of technologist.

Our STEM talent has the technical and critical thinking skills to develop, implement, and improve AI systems. Industry partnerships enable our students to tackle real-world challenges that advance societal good and spur economic growth. In response to a historic investment in tech talent in the commonwealth, Virginia Tech is dedicated to enrolling and graduating thousands of computer scientists and engineers over the next 20 years.

Our cross-cutting research explores multiple technical areas.

- + 5G/6G/Next G wireless communications
- + autonomous systems
- + augmented/virtual reality
- + computer visioning and visual analytics
- + explainable/generative AI
- + forecasting
- + human-AI collaboration
- + machine/deep learning
- + natural language processing
- + responsible AI
- + risk assessment
- + robotics

We're ready-made partners for research and federal funding opportunities.

Virginia Tech has a research portfolio of more than \$420 million annually, placing it among the top 6 percent of universities in the nation. Our diverse portfolio includes research with virtually every federal agency, robust corporate partnerships, and strengths in fields critical to national competitiveness. And our close proximity to the D.C. area maximizes our ability to co-capture federal funding.

BY THE NUMBERS

Top 10

Virginia Tech's national ranking for producer of undergraduate engineers by enrollment

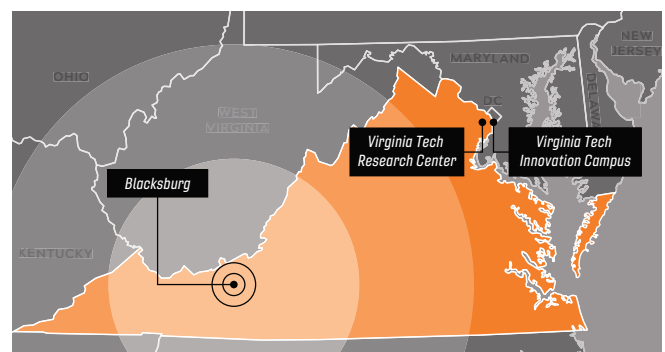
\$420M

Annual external research expenditures

~25%

External research expenditures supported by the DOD

Proximity to Power

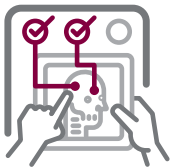




Leveraging our strengths to inspire AI solutions

Together, we can customize a partnership that meets your business goals while tying together assets at Virginia Tech. Mechanisms may include sponsored research, joint proposals, donated equipment, scholarships, faculty fellowships, and more.

Explore what's possible



+ **Support life-changing research:** Children's National Hospital and Virginia Tech are collaborating on AI technology to provide better pediatric care by targeting specific diseases, developing smart surgery, and optimizing hospital management.



+ **Benefit from our high-quality research data:** VTTI researchers are building and commodifying a massive virtual data library of real-world road events to help manufacturers craft more secure autonomous vehicles.



+ **Advance technologies in areas of mutual interest:** A student-led research team is working with Amazon and the National Security Institute to facilitate use cases for machine learning within the cloud for wireless communication applications.

Platform for partnership

Sanghani Center for Artificial Intelligence and Data Analytics

The Sanghani Center is Virginia Tech's leading AI-associated center focused on data science, machine learning, and knowledge discovery in key areas of national interest.

Pamplin College of Business

Pamplin is the largest business degree-granting school in the commonwealth. Its future new home, the \$250 million Global Business and Analytics Complex, demonstrates the university's commitment to leading innovation in data analytics and decision science.

National Security Institute at Virginia Tech

This \$50 million annual research enterprise serves defense and intelligence agencies by validating complex AI systems in the interest of national security and engaging over 1,000 clearable students each year.

Commonwealth Cyber Initiative (CCI)

Led by Virginia Tech, this network of 40+ higher ed institutions supports world-class research at the intersection of data, autonomy, and security. CCI's testbed in Arlington is one of only 15 wireless testing centers in the world approved by the O-RAN Alliance.

Virginia Tech Transportation Institute (VTTI)

VTTI sets the standard for next-generation vehicles by conducting research in its \$150 million testing environment that spans 730+ acres. The institute houses one of the largest repositories of continuous naturalistic driving data in the world.

Let's Get Started.

Complex problems require bold partnerships. Early investment with Virginia Tech will better prepare the industry's ability to meet the increased talent and research demand. Reach out to **Megan Wallace**, Business Development for Innovation & Partnerships, at link@vt.edu to start the conversation.