

ACADEMICS



James Madison University



George Mason University



Virginia Tech

# Virginia's Tech Talent Investment Program



William & Mary



University of Virginia



# Virginia's Tech Talent Investment Program

Through its historic, innovative Tech Talent Investment Program, the Commonwealth of Virginia, donors, and corporate partners are investing more than \$2 billion to expand Virginia's tech talent pipeline, doubling the number of graduates each year in computer science and closely related fields.

Additionally, Virginia higher education institutions already produce roughly 12,000 tech-related degrees and certificates annually in areas ranging from computer science to modeling and simulation.

## Virginia's Tech Talent Investment Program



32,000

additional graduates in excess of current levels in Computer Science and related fields over the next 20 years due to Virginia's new education investments in tech talent

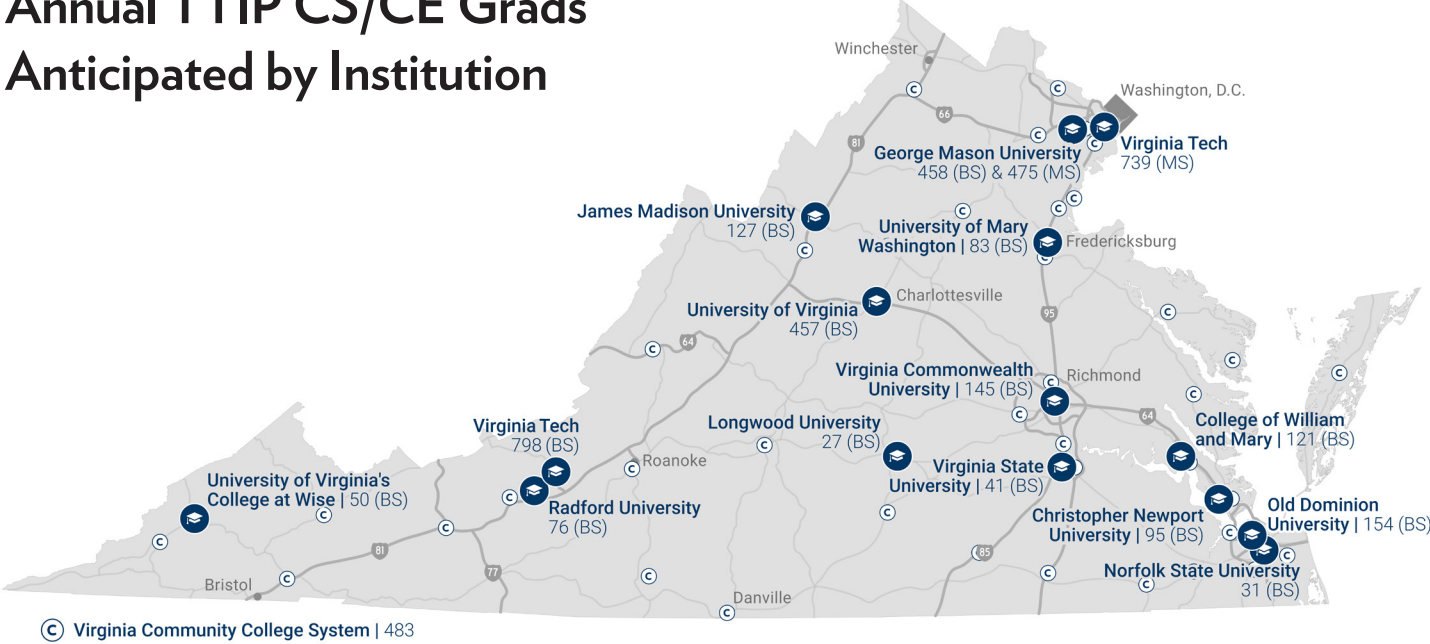




# Largest U.S. Investment in CS Education

Virginia's Tech Talent Investment Program will more than double the number of BS and MS graduates in Computer Science and related fields each year.

## Annual TTIP CS/CE Grads Anticipated by Institution



## Degree Fields of Study Eligible for Program Funds:

1. Computer Science
2. Computer Engineering
3. Computer Software Engineering

To add 32,000 BS and MS graduates in Computer Science and related fields over 20 years, Virginia is investing:

- ~\$675M in undergrad education, including 250-300 new faculty lines, startup packages, capital projects (new buildings and labs), and operational support
- ~\$375M in graduate education, including 50-75 new faculty lines, startup packages, capital projects (a new tech campus plus new buildings), and operational support
- \$25M in tech internships/apprenticeships in higher education
- \$25M in K-12 computer science education (e.g., professional development, online curricula)

Philanthropic gifts and corporate partnerships will add more than \$900 million to these state investments.



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We were particularly impressed by the dedication to higher education and the K-12 talent pipeline [in Virginia]. The investments the local community and the state are going to make are really going to augment the great talent pipeline, which is a primary reason why we chose the Commonwealth for this new headquarters.

HOLLY SULLIVAN  
Head of Worldwide Economic Development, Amazon

amazon



Amazon HQ2 Rendering, Arlington County





Thanks to the support from the Commonwealth of Virginia's Tech Talent Investment Program, Virginia Tech is creating a bold, new vision for graduate education in computer science and computer engineering that will unlock the power of diverse people and ideas to solve the world's most pressing problems through technology.

Located adjacent to the nation's capital in Alexandria, Virginia Tech's new \$1 billion, 1 million-square-foot graduate Innovation Campus will unite industry, government, and academia in dynamic project-based learning and research to shape the way knowledge and emerging technologies influence society, driving a new era for the greater Washington, D.C.-Metro area's innovation economy. Some highlights include:

- **Designed for partnerships.** Project-based learning will blur the lines between research and education and invite industry partners to be integral to the programs and experiences taking place at the Innovation Campus and create industry-ready graduates ready to make a difference in the tech sector.
- **Purpose-driven research.** Once fully built out, the Innovation Campus will support about half a dozen broad research areas of excellence. Potential focus areas include cybersecurity, artificial intelligence, next-generation wireless, and quantum information science and technology.
- **Built for scale.** Construction of the first building, an 11-story, 300,000 square-foot architectural and environmental sustainability award-winning design structure, is on track to start in summer 2021 and open to students in 2024. Virginia Tech also plans to build two additional buildings, each about 150,000 square feet, as the campus grows. At its full build-out, the Innovation Campus will host approximately 750 master's and 200 doctoral students and graduate 550 master's and 50 doctoral candidates annually.
- **New pathways for students.** A new Virginia Tech partnership program allows undergraduate students at James Madison University, Christopher Newport University, the University of Mary Washington, Radford University, and Hollins University to apply early and earn graduate credits in master's degree programs based at the Virginia Tech Innovation Campus. Virginia Tech is partnering with Alexandria City Public Schools to enhance science, technology, engineering, and math opportunities for students and create potential pathways to higher education.



Pictured: Virginia Tech Innovation Campus Rendering, Alexandria





Through the generous support of Virginia's Tech Talent Investment Program, over the next several years George Mason's Arlington Campus will undergo a \$250 million transformation that will serve as a critical catalyst in the further activation of the Rosslyn-Ballston corridor, a dynamic and growing innovation district with a thriving high-tech ecosystem. What will be called Mason's Institute for Digital InnovAtion (IDIA) will engage researchers, innovators, and scholars in cutting-edge work to shape the future of our digital society, promoting equality, wellbeing, security, and prosperity. Over 300 George Mason students, faculty members, and research staff will explore topics along several themes:

**Technologies:** Inventing new algorithms, digital techniques, and technologies;

**Systems:** Developing and deploying computing systems to advance fields as diverse as finance, education, built infrastructure, science, economics, agriculture, health, transportation, entertainment, national security, and social justice; and

**Digital Society:** Engaging in critical reflection that examines the implications of digital innovation to ensure that innovators are sensitive to designing and innovating responsibly, and that key stakeholders – including users, innovators, policy-makers, and the public at large – are informed about technology's social, ethical, political, and economic impacts.

The Mason IDIA will not only support the university's tech-based research and related educational programs, but will provide collaboration and convening spaces to support public programming for the Arlington community. The building will include approximately 500,000 square feet of new space adjacent to the university's existing presence in Virginia Square.



Pictured: George Mason University Institute for Digital InnovAtion (Interior), Arlington  
Concept rendering by Mason Innovation Partners / EYP



# A Large and Diverse Tech Ecosystem

## Illustrative Examples of Tech Headquarters and Centers in Virginia

Technology businesses relocating or expanding into Virginia join world-class tech leaders like Amazon, Microsoft, Google, and Facebook, as well as companies in emerging sectors such as artificial intelligence/machine learning (AI/ML), FinTech, Manufacturing Tech, and Software-as-a-Service (SaaS). According to CyberSeek, Virginia is also home to the second largest cybersecurity sector in the country.



Central Virginia



T-Mobile

THOMSON REUTERS

IBM

Capital One

Mobelux

CoStar Group

ASGN Incorporated

CGI

FACEBOOK



CARMAX



Greater Richmond

TORC

rackspace technology

OZMO

1901 group  
A Leidos Company

PowerSchool

Roanoke Region



New River Valley

1901 group  
A Leidos Company

CGI

Southwest Virginia

WIZE SOLUTIONS

I81-I77 Crossroads

1901 group  
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noblis

Southern Virginia

framatom

Lynchburg Region

CLOUDFIT SOFTWARE

amazon

Micron

Google

NORTHROP GRUMMAN

SAP

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VERISIGN

MicroStrategy

GDIT

Northern Virginia

IntelliBridge

perspecta

SCCI

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MCKENNA PRINCIPALS

Northern Neck

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Eastern Shore

IHNA

Peregrine

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Jefferson Lab

ADP

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Andromeda SYSTEMS  
INCORPORATED

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CONTRACTING GROUP

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# #1 Highest Concentration of Tech Industry Workers