FAIRFAX COUNTY, VIRGINIA

Industry Profile: Emerging Technologies

Fairfax County has created an environment which supports technological innovation and creativity. Our companies are reinventing the worlds of IT, software, aerospace and defense, and finance through breakthroughs in fields such as AI, data analytics, autonomous vehicles, mobile communications, cybersecurity and health IT.

EMERGING TECHNOLOGIES BY THE NUMBERS

$1.0B
Capital Investment
(YE 2024)

$4.4B
Federal Contract
R&D Awards (FY 2024)
By Place Of Performance

$65M
SBIR/STTR Awards
(YE 2024)

137
Federal Labs
(D.C./MD/VA)

CAPITAL ATTRACTION BY PRIMARY INDUSTRY:

Information Technology

Healthcare

Business Products & Services (B2B)

Consumer Products & Services (B2C)

SOURCES: PITCHBOOK, USASPENDING.GOV, SBIR.GOV, USPTO, NATIONAL SCIENCE FOUNDATION

INDUSTRY EXPERTISE

- ADDITIVE MANUFACTURING/3D PRINTING
- ARTIFICIAL INTELLIGENCE (AI)
- AUTONOMOUS SYSTEMS (UAVS)
- BLOCKCHAIN
- CLEAN ENERGY
- CYBERSECURITY
- INTERNET OF THINGS (IOT)
- MACHINE LEARNING
- NATURAL LANGUAGE PROCESSING
- QUANTUM COMPUTING
- ROBOTIC PROCESS AUTOMATION
- SATELLITE TECHNOLOGIES
- SIMULATION
- SMART CITIES
- VIRTUAL REALITY

TOP INDUSTRY VERTICALS
(BY DEAL COUNT)

- ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
- SAAS
- HEALTHTECH

TOP RESEARCH UNIVERSITIES (MSA)

AMERICAN UNIVERSITY WASHINGTON, DC

GEORGE MASON UNIVERSITY

GEORGETOWN UNIVERSITY

THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, DC

HOWARD UNIVERSITY 1867

UNIVERSITY OF MARYLAND

VIRGINIA TECH

D.C. METRO AREA WORKFORCE

285K
Tech Workers
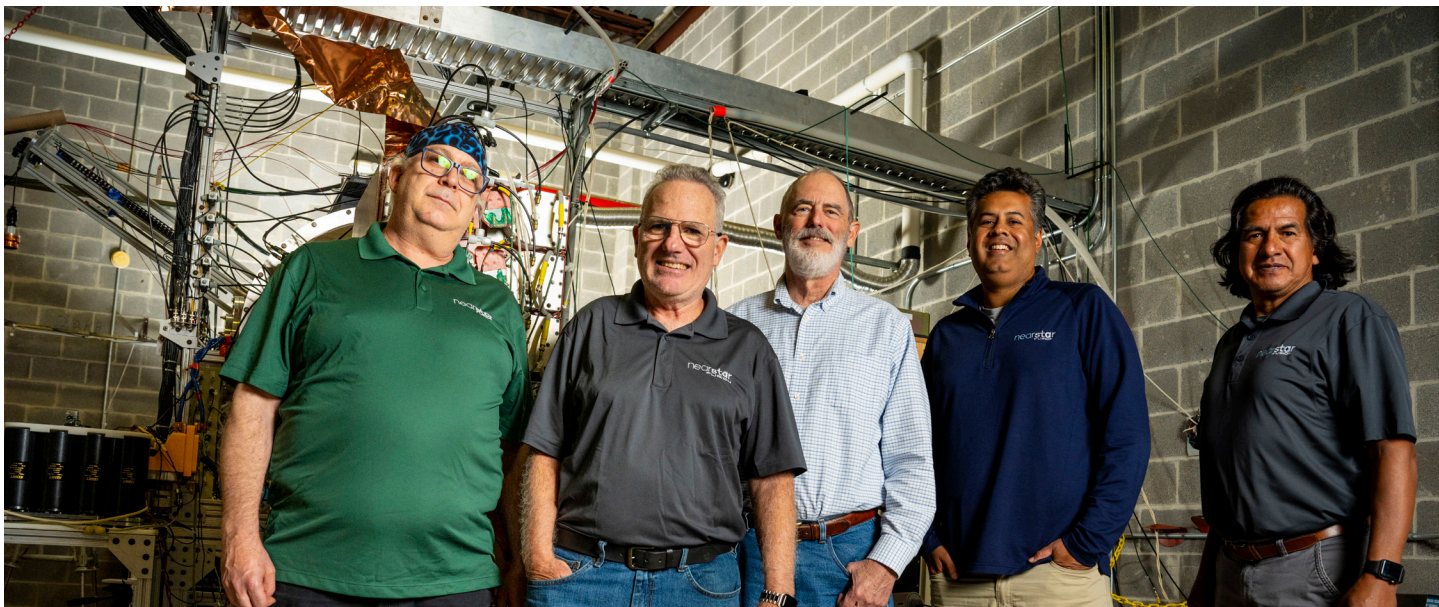
23K
Tech Degrees Awarded Annually

$131K
Median Annual Wages

EMERGING TECHNOLOGIES SELECTED OCCUPATIONS

Occupation	Number of Workers
INFORMATION TECHNOLOGY	
Software Developers	68,210
Software Quality Assurance Analysts and Testers	8,740
Computer Systems Analysts	17,720
Computer and Information Research Scientists	3,150
ENGINEERING	
Mechanical Engineers	5,080
Electronics Engineers, Except Computer	2,320
Electrical and Electronics Engineering Technicians	1,870
Computer Hardware Engineers	2,060
Aerospace Engineers	2,750

SOURCES: U.S. BUREAU OF LABOR STATISTICS, OCCUPATIONAL EMPLOYMENT STATISTICS MAY 2024, JOBSEQ, IPEDS

EMERGING TECHNOLOGY COMPANY HIGHLIGHT

NearStar Fusion • Chantilly, VA

Emerging Technology: Fusion (Energy)

NearStar Fusion is developing a fusion power plant technology called Hypervelocity Gradient Field Fusion (HGFF), with the goal of providing the planet with unlimited clean energy. HGFF also has the potential to be adapted for use in space-based, high-performance fusion rocket propulsion.

EMERGING TECHNOLOGIES REGIONAL ASSETS

FEDERAL AGENCIES

Defense
- DIA
- DOD
- JAIC
- NGIA
- NRO
- NSA

Civilian Intelligence Community
- CIA
- DNI
- FBI
- TREASURY

Research and Development
- ARPA*E
- DARPA
- FLC
- HOMELAND SECURITY – S&T
- IARPA

Homeland Security
- DHS

Space
- NASA

Technology Patenting
- USPTO

Transportation
- FHWA – TURNER FAIRBANK
- DOT
- FAA
- ITS

NETWORKING GROUPS AND INDUSTRY ASSOCIATIONS

Networking groups in the Washington, D.C., region, include

- American Council on Renewable Energy
- Association for Uncrewed Vehicle Systems International (AUVSI)
- American Institute of Aeronautics and Astronautics
- Blockchain Association
- Consumer Technology Association
- CTIA
- Data Science DC
- DC Tech Meetup
- IEEE Computer Society
- International Test and Evaluation Association
- ITechLaw
- Mason Innovation Exchange (MIX) at George Mason University
- Northern Virginia Chamber of Commerce
- NOVALabs
- NVTC
- Product Liability Advisory Council
- Smart Electric Power Alliance
- Virginia Innovative Partnership Corporation
- Women in Technology
- Women's Society of Cyberjutsu

RESEARCH INSTITUTIONS

- Institute for Defense Analysis
    - Center for Communications and Computing
    - Systems and Analysis Center
- Noblis
- RAND Corporation
- The Aerospace Corporation
- The MITRE Corporation
    - AI Assurance & Discovery Lab
    - Artificial Intelligence and Autonomy Innovation Center
    - Center for Advanced Aviation System Development
    - Homeland Security Systems Engineering and Development Institute
    - National Cybersecurity Center of Excellence
    - National Security Engineering Center

EDUCATIONAL INSTITUTIONS

AMERICAN UNIVERSITY WASHINGTON, DC · GEORGE MASON UNIVERSITY · GEORGETOWN UNIVERSITY · GW Data Science · HOWARD UNIVERSITY · JOHNS HOPKINS UNIVERSITY · MARYMOUNT UNIVERSITY · UNIVERSITY OF MARYLAND · NOVA Northern Virginia Community College · VIRGINIA TECH · UNIVERSITY of VIRGINIA

ACCELERATE

BREAKFAST SERIES

The Accelerate Breakfast Series and Annual Conference offers opportunities for emerging startups to pitch and also network with area venture capitalists and Investors and technical support staff.

acceleratedeals.org

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