FAIRFAX COUNTY, VIRGINIA
Industry Profile: Emerging Technologies

For decades, Fairfax County has created an environment that fosters innovation in technology and supports creativity. As new technologies emerge, Fairfax County is at the forefront of embracing them to develop the industries of the future. Our companies are reinventing the worlds of IT, software, aerospace and defense, and finance. They are creating breakthroughs in AI, analytics, autonomous vehicles, blockchain, communications, cybersecurity and personalized medicine.

FAIRFAX COUNTY: THE POWER OF PLACE

>> Access to the Washington, D.C., metro area with a large, diverse and highly educated population open to trying new products or ideas

>> A diverse and dynamic network of businesses, from Fortune 500 to technology start-ups

>> A regional workforce with strong skills in engineering, software development, system architecture design, web development and UX design

>> Excellent location to test or bring emerging technologies to market

>> Proximity to U.S. government patenting, regulatory and policy decision makers

>> Access to the leading minds of university and government research and development efforts via federal labs and regional Tier-1 research institutions

INDUSTRY EXPERTISE

ADDITIVE MANUFACTURING/3D PRINTING
ARTIFICIAL INTELLIGENCE (AI)
AUGMENTED REALITY
AUTONOMY/AUTONOMOUS VEHICLES
BLOCKCHAIN
CLEAN ENERGY
CYBERSECURITY
DRONES
INTERNET OF THINGS (IOT)
MACHINE LEARNING
NATURAL LANGUAGE PROCESSING
ROBOTIC PROCESS AUTOMATION
SATELLITE TECHNOLOGIES
SIMULATION
SMART CITIES
VIRTUAL REALITY

INDUSTRY VERTICALS

CONSTRUCTION
EDUCATION
ENERGY
FINANCIAL SERVICES
GOVERNMENT
HEALTHCARE
HOSPITALITY
NON-PROFIT
RETAIL

continued >
FAIRFAX COUNTY: INVESTING IN SMART TECHNOLOGIES

**Autonomous Vehicles**
Fairfax County Government and Dominion Energy are partnering on an autonomous shuttle called Relay. Relay is now being tested to operate between the Dunn Loring Metro and Mosaic District. This is the first test of driverless public transportation in the D.C. region.

Optimus Ride, a maker of self-driving taxis and developer of autonomous technologies has partnered with Brookfield Properties to deploy their vehicles at Halley Rise in Reston, VA.

**Drones for Public Safety**
Fairfax County’s Public Safety Small Unmanned Aircraft Systems Program will allow public safety agencies to use drones in assessing situations including flood damage, hazardous materials response, search and rescue and crash reconstruction. [www.fairfaxcounty.gov/uas/about-uas-program](http://www.fairfaxcounty.gov/uas/about-uas-program)

**Blockchain Technologies**
Fairfax County’s Employees’ Retirement System and Police Officers Retirement System (PORS) invested more than $50 million in a fund that invests in blockchain technologies.

**Smart Communities**
The Town of Herndon deployed smart cities technologies including electric vehicle charging stations, centrally-controlled LED lights, free WiFi and sensor equipment intended to collect data on pedestrian and bicycle activity.
EMERGING TECHNOLOGIES REGIONAL ASSETS

FEDERAL AGENCIES

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NETWORKING GROUPS AND INDUSTRY ASSOCIATIONS

Networking/meetup groups in the Washington, D.C., region, include:
- American Council on Renewable Energy
- Association for Unmanned Vehicle Systems International (AUVSI)
- American Institute of Aeronautics and Astronautics
- Association of Information Technology Professionals
- Blockchain Association
- Center for Innovative Technology (CIT)
  - Virginia Unmanned Systems Center
- Chamber of Digital Commerce
- Consumer Technology Association
- CTIA
- Data Science DC
- DC Tech Meetup
- IEEE Computer Society
- International Test and Evaluation Association
- ITechLaw
- Licensing Executives Society
- Mason Innovation Exchange (MIX) at George Mason University
- Mid-Atlantic Venture Association
- Northern Virginia Chamber of Commerce
- NOVALabs
- NVTC
- Product Liability Advisory Council
- Smart City Council
- Smart Electric Power Alliance
- VR/AR Association
- Wireless Innovation Forum
- Women in Data
- Women in Technology
- Women's Society of Cyberjutsu
- Women Who Code

RESEARCH INSTITUTIONS

100+ Federal Labs
- Institute for Defense Analysis
  - Center for Communications and Computing
  - Systems and Analysis Center
- Noblis
- RAND Corporation
- The Aerospace Corporation
- The MITRE Corporation
  - Center for Advanced Aviation System Development
  - Center for Enterprise Modernization
  - CMS Alliance to Modernize Healthcare
  - Homeland Security Systems Engineering and Development Institute
  - National Cybersecurity Center of Excellence
  - National Security Engineering Center

EDUCATIONAL INSTITUTIONS

- American University
- George Mason University
- Georgetown University
- Howard University
- Johns Hopkins University
- Marymount University
- University of Maryland
- University of Virginia
- Virginia Tech
- NOVA

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