Capability Statement

Core Competencies:

Corvus Labs, LLC possesses the wide range of diverse skill sets needed to safely and robustly apply the potential of **artificial and machine intelligence** to a variety of customer needs with **testing and evaluation** integrated throughout the entire development lifecycle

Software Development

- Real-Time Multimodal, Multi-Spectral Computer & Machine Vision
  - *2D/3D Object Detection with Custom Neural Network Architectures*
  - *Tracking, Recognition/Classification, Re-identification, and Segmentation*
  - *SLAM*
  - *Aimpoint Selection*
  - *Radiometric Camera Calibration*
  - *Target Localization*
- Online Sensor Fusion & Data Association (Stable Multi-Object Tracking Across Multiple Types of Sensors with Unique Target Identifications)
- Modeling & Simulation
  - *Edge to Cloud/Platform in the Loop Simulation*
  - *Synthetic Data Generation*
  - *3D Reconstruction*
  - *Physics-Based Motion Modeling*
  - *Probabilistic Modeling*
  - *Model Quantization*
- Low Latency Sensor Streaming/Remote Teleoperation with Real-Time Quality of Service Requirements over LTE, Wi-Fi, and Other Networking Technologies (Command and Control)

Hardware Design & Development

- High-Performance Computing/Distributed Computing with Hardware Acceleration (GP-GPU/FPGA) (Including Custom Computing System Designs)
- Multi-Robot System Design/Development
  - *Mechatronics*
  - *Sensor Suite Selection*
  - *Software Architecture*
  - *Cloud Robotics*

CORVUS LABS

Company Data:

CAGE: 8NBV6

UEI: GBUCTSXV4D65

DUNS: 117538262

SBC ID: SBC_001975275

VA SCC ID: S7983812

Tax ID: 82-4258042

HUBZone Historically Underutilized Business Zone CERTIFIED

CERTIFIED **SWaM** Small, Women and Minority-Owned
Supplier Diversity Strengthens the Commonwealth
by the Virginia Department of Small Business & Supplier Diversity

Key Customers / Collaborative Partners / Memberships:

GENERAL ATOMICS ELECTROMAGNETIC SYSTEMS

VIPC | VIRGINIA INNOVATION PARTNERSHIP CORPORATION
Connecting Innovators with Opportunity

Office of Naval Research ONR Science & Technology

VT VIRGINIA TECH

UNIVERSITY of VIRGINIA

UNITED STATES MILITARY ACADEMY WEST POINT®

THK

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RAMP THE REGIONAL ACCELERATOR

RBTC ROANOKE - BLACKSBURG TECHNOLOGY COUNCIL

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