LIMIT LABS LLC

luka@limitlabsai.com
(614) 800-4032 | mil.limitlabsai.com
UEI:M8UBA3WF2XU1 | CAGE:9Q0K9

Generalve AI for geospatially accurate 3D virtual environments
Text, GIS, satellite imagery, and floorplans -> high-fidelity synthetic environments

Limit Labs LLC provides cutting-edge Generative Artificial Intelligence (GenAI) solutions designed to automate the creation of high-fidelity, scalable, and adaptable 3D virtual environments for the Department of Defense (DoD). Founded at MIT, Limit Labs' ROOMSEED and WORLDSEED tools streamline mission planning and training by transforming textual, GIS, satellite, or floorplan data into geospatially accurate synthetic environments. Limit Labs LLC has **Sole Source Authority** for its AI environmental creaion tools.

CORE COMPETENCIES

- **3D Interior Generation from Floorplans (ROOMSEED):** Automated reconstruction of building interiors, transforming 2D architectural floorplans into fully realized, furnished 3D workspaces. Improved data utilization reduces human error.
- **Custom Generative Transformers:** Design and training of custom transformers to organize and place objects within synthetic scenes with high contextual accuracy.
- **Boutique Model Optimization:** Precision fine-tuning of Large Language Models (LLMs) and generative transformers to meet highly specific, mission-critical requirements that off-the-shelf solutions cannot address.
- **Geospatial & GIS Integration (WORLDSEED):** Leverages GIS data standards, satellite imagery, and OpenStreetMap (OSM) data to generate realistic terrain and city-scale layouts.
- **Multi-Scale Environment Generation :** Scales from detailed building interiors to city-scale environments containing 100+ buildings while maintaining structural likelihood and editability.

DIFFERENTIATORS

- **Exportability:** Proprietary file format can be inflated into multiple software stacks for use on phones, tablets, XR headsets, and more.
- **Spatial Hierarchy Focus:** Emphasis on spatial relationships and hierarchical placement of 3D assets to ensure editable, realistic, and usable training grounds.
- **Rapid Readiness:** Reduces time and cost of environment creation, enabling personnel to generate rehearsal scenarios in minutes rather than months.
- **Cross-Branch Interoperability:** Facilitates shared synthetic training environments (STE) where multiple teams across different military branches can operate simultaneously.
- **MIT-Founded Team:** Engineering-led team focused on shipping developer-ready tools for simulaion and training.

SELECTED EXPERIENCE

- **Phase I SBIR award W519TC-25-P-0032**: DoD-aligned R&D supporting generative worlds for simulated training environments. XR ecosystem demonstrations informed by rigorous developer feedback and research partnerships.

TECHNICAL VISUALIZATIONS

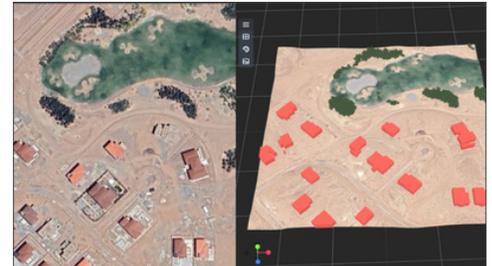### Precision Floor Planning

Automating the transition from 2D architectural plans to fully 3D spaces.

Tactical Building Modeling

Generating high-fidelity 3D structures from aerial and satellite-derived inputs.

GIS to 3D Terrain

Translating real-world GIS and satellite data into interactive, city-scale simulations.

COMPANY DATA

Address: 3010 Greenvale Dr, Columbus, OH 43235
UEI: M8UBA3WF2XU1
CAGE: 9Q0K9
Status: Small Business (SBIR/STTR eligible)
NAICS: 541715 Keywords: XR, VR, AI, simulation, training, GIS

CONTACT

Luka Srsic, Corporate Official
luka@limitlabsai.com
(614) 800-4032
mil.limitlabsai.com