

WHAT WE DO

Novela AI takes a defined technical problem from the first engineering decision through a tested, working system. We select the method for the evidence, data, constraints, and deployment environment - model APIs, open source, fine-tuning, training, or a combined system.

CORE CAPABILITIES

- Vision, 3D perception, and robotics**

Object detection including small objects in drone imagery; multi-view and BEV 3D perception; segmentation from sparse annotation; distributed reinforcement learning and zero-shot sim-to-real transfer onto physical robots.
- LLM systems, agents, and evaluation**

Fine-tuning and post-training (SFT, LoRA/QLoRA, preference optimization, RL); agent engineering with sandboxing, rollback, and tool integration; multi-judge evaluation systems and reproducible benchmark and acceptance-test harnesses.
- Language, generative, and scientific machine learning**

Extreme multi-label classification at million-label scale; text-to-image generation and contrastive learning; computational proteomics and multi-omics; medical imaging and bioinformatics; benchmark and dataset construction.
- Production software and complete handoff**

Data pipelines, APIs, backends, cloud services, web and iOS applications, CI, observability, and test automation, delivered with the repository, tests, deployment setup, and documentation.

SELECTED TEAM EVIDENCE

- Computer science Ph.D. and two additional M.S. degrees in computer science; eight years of AI/ML engineering experience.
- First-author research at NeurIPS and ICML; co-first-author work in Nature Communications and ISBI; additional IEEE TKDE publication.
- Team-member prior work, all publicly verifiable: NovelHive (novelhive.ai), a live AI fiction platform on web and iOS; the public UAV3D benchmark, dataset, and leaderboard; and sim-to-real navigation demonstrated on a Boston Dynamics Spot.

PUBLIC WORK EXAMPLES

UAV3D / NeurIPS 2024

Large-scale UAV 3D perception benchmark and multi-view detection research.

WeakNucleiSeg / ISBI oral

Weakly supervised medical-image segmentation with public research evidence.

DeepPhospho / Nature Communications

Deep learning and multi-omics integration for computational proteomics.

NovelHive / live product

Team-member prior work spanning an AI web product, iOS app, backend, evaluation, and deployment.

COMPANY SNAPSHOT

BUSINESS
California SB(Micro) 2054585;
woman-owned
(self-represented in SAM; not
SBA WOSB-certified)

UEI
J6U5C73EBW27

CAGE
246B6

SAM
Active - All Awards; expires
2027-08-15

PRIMARY NAICS
541511 - Custom Computer
Programming Services

ADDITIONAL NAICS
541512 / 541519 / 541715

LOCATION
Livermore, CA - SF Bay Area

DELIVERY

Defined scopes with agreed deliverables, acceptance tests, schedule, and fixed price.

Handoff can include source code, tests, deployment setup, documentation, and operating notes.

Data access, CUI, citizenship, and export requirements are reviewed before work begins.

CONTACT

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