

GABRIAL MATHEWS

ROBOTICS DATA & EMBODIED-AI EVALUATION ENGINEER

gabesm13@gmail.com | [linkedin.com/in/gabrial-mathews-04768a268](https://www.linkedin.com/in/gabrial-mathews-04768a268) | github.com/Gabesm13

PROFILE

Independent AI contractor and applied mathematics graduate with more than two years building and auditing training data and evaluations for frontier AI systems. Paid work through Alignerr spans multiple accepted MuJoCo robotics tasks and expert controller policies, built end to end from observation/action schemas and sensing to ground truth, reference baselines, deterministic scoring, diagnostics, and reviewer evidence.

TECHNICAL SKILLS

Robotics Data	MuJoCo; controller-policy design; simulation; schema design; sensor and trajectory data; ground truth; navigation; deterministic evaluation
Models / Perception	PyTorch / FLAN-T5; structured action generation; raster-to-geometry; visual and semantic evaluation; spatial representation
Engineering	Python; FastAPI; Docker; CI/CD; SQL / SQLite; data provenance; failure analysis; human-in-the-loop review

EXPERIENCE

Alignerr - Independent AI Contractor

07/2025 - Present

Robotics benchmark author, controller-policy engineer, and evaluator | Remote

- Author multiple accepted MuJoCo robotics tasks and expert controller policies across aerial inspection, cooperative multi-agent control, and precision navigation and docking under partial observability, noisy sensing, delays, disturbances, contact, and recovery constraints.
- Own the evaluation stack from observation/action schemas and ground truth to hidden variations, deterministic scoring, anti-shortcut safeguards, diagnostics, and reviewer-ready evidence; accepted work uses capable reference policies as same-information baselines for evaluating model-generated policies.

Outlier AI / Scale AI - Independent AI Training Contractor

03/2024 - Present

Contributor, reviewer, and quality control specialist | Remote, project-based

- Progressed from authoring difficult mathematics, physics, visual, and spatial-reasoning data through review of expert work to final pre-delivery quality control, translating ambiguous standards into consistent decisions and actionable failure analysis.

SELECTED SYSTEMS

GraphDat - Independent AI/ML Engineer

2025 - Present

Structured action generation and image-to-mesh geometry | PyTorch, FLAN-T5, FastAPI

- Fine-tune sequence-to-action models that translate language and scene context into validated geometry operations, using supervised retraining, semantic evaluation, and a deterministic scene engine that owns state, validation, execution, and rendering.
- Built an image-to-mesh pipeline that segments color regions, repairs contour loops, constructs shared boundaries, and triangulates editable polygon meshes - direct work in image processing, visual representation, and spatial geometry.

Materials Cost Tracker - Independent Software Engineer

2026 - Present

Local-first document-data product | Python, OCR, SQLite

- Turn heterogeneous vendor documents into reviewable part-price history with source-level provenance, reconciliation, exception-first human review, guarded approvals, and recovery controls.

EDUCATION

Montana State University - B.S. Applied Mathematics, Honors, GPA 3.65; Outstanding Graduating Senior; MUSHS Tuition Waiver, 2023

Gallatin College Montana State University - Associate of Arts, 2018 | Music Technology studies, Montana State University