Matan Sudry | Resume

- Industry: Senior Computer Vision DL Researcher at Trigo Vision
- Academic: Ph.D. in Robotics and Autonomous Systems (In progress)
- Expertise: Computer vision, Reinforcement learning and Automated planning
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Experience

2025 - Now **Senior Computer Vision DL Researcher** — Trigo vision

- Developed and deployed novel, customer-centric computer vision pipelines to production, surpassing existing literature benchmarks in a rapid startup environment
- Developed a zero-shot object recognition pipeline utilizing **CLIP-based metric learning**. Engineered a shared embedding space to align multi-modal features, enabling zero-shot classification of novel object categories without task-specific fine-tuning

2024 - 2025 **Team Lead - Semantic Detection (Maternity Cover)** — General Motors

- Led a team of 10 algorithm engineers in developing **2D/3D parking slot and lane detectors**, overseeing the full lifecycle from research to production-ready deployment
- Led a **Data Mining** hackathon across all Advanced Driver Assistance Systems (ADAS), delivering a tutorial on **foundation models**, building infrastructure to scale algorithms on big data, and advising participating teams.

2023 - 2024 **Tech Lead - Offline Computer Vision Algorithms** — General Motors

- Built a roadmap aligned with technical requirements and strategic goals
- Worked on a **NeRF-based** scene reconstruction Algorithm to synthesize data from novel views, improving cross-program algorithm generalization
- Developed a **Diffusion-based generative model** for sim-to-real data translation, including infrastructure for DDP training, integration with state-of-the-art models, and large-scale data pipelines for training and delivering end-to-end data for detectors

2020 - 2023 **Senior Computer Vision Algorithm Developer** — General Motors

- Development of deep learning and machine learning algorithms
- Owning complete feature cycle, from research implementation

2017 - 2020 **CM Procurement Manager - NPI** — Nvidia/Mellanox

- Operative management of NPI projects from design stage to mass production

2016 - 2017 **Contract Manager** — Rafael

- Led strategic outsourcing procurement projects, managing end-to-end supplier selection, contract negotiations, and vendor performance

Education

2021 - Now **P.hD student - Robotics and Autonomous Systems, GPA: 92** — Technion - Israel Institute of Technology

- Research field - Robot learning for manipulation/Reinforcement learning [1]–[4]
- Advisors: Prof Erez Karpas and Prof Aviv Tamar

2017 - 2021 **M.Sc Data Science, GPA: 89** Technion - Israel Institute of Technology

- Master Thesis: Learning to Estimate Search Progress Using Sequence of States [5]
- Advisor: Prof Erez Karpas

2013 - 2017 **B.Sc Industrial Engineering, GPA: 92.06** ORT Braude College of Engineering

- Development of a methodology for embedding several types of patients in a stochastic

Publications

[1] G. Freund, T. Jurgenson, M. Sudry, and E. Karpas, "Twisted-rl: Hierarchical skilled agents for knot-tying without human demonstrations," *arXiv preprint arXiv:2602.14526*, 2026.

[2] M. Sudry, T. Jurgenson, and E. Karpas, "Task and motion planning using infinite completion tree and agnostic skills," in *Proceedings of the International Symposium on Combinatorial Search*, vol. 18, 2025, pp. 154–161.

[3] T. Jurgenson, M. Sudry, G. Avineri, and A. Tamar, "Roboarm-nmp: A learning environment for neural motion planning," *arXiv preprint arXiv:2405.16335*, 2024.

[4] M. Sudry, T. Jurgenson, A. Tamar, and E. Karpas, "Hierarchical planning for rope manipulation using knot theory and a learned inverse model," in *7th Annual Conference on Robot Learning*, 2023.

[5] M. Sudry and E. Karpas, "Learning to estimate search progress using sequence of states," in *Proceedings of the International Conference on Automated Planning and Scheduling*, vol. 32, 2022, pp. 362–370.