

Oleg Sinavski, PhD

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PROFILE

Principal Applied Scientist with over 10 years of experience leading teams and driving cutting-edge innovations in Visual Language Models, Machine Learning, and Robotics. Proven expertise in multimodal AI and large-scale ML system deployment. Research contributions to state-of-the-art advancements in reinforcement learning, language models, and robotics.

EXPERIENCE

Wayve, London, UK

Principal Applied Scientist

Sep 2021 – Present

- Leading a research team in Video Language Action models.
 - First VideoLM driving a car in a public environment: [Lingo-2](#).
 - Instrumental in securing \$1B funding with [Lingo-1](#) Video Language Model.
 - Achieving state-of-the-art performance on [CARLA AV challenge](#): [CarLLava](#).
- Led Multi-Agent Reinforcement Learning team ([blogpost](#)).
- Led company-wide integration testing of deep networks: Simulation, Neural rendering, real data analysis.
- Research in Model-Based RL with MCTS, Inverse Reinforcement Learning, and Behavior Cloning.

Brain Corp, San Diego, US

Vice President, Research And Development
Director, Research And Development

Mar 2020 – Sep 2021
Oct 2017 – Mar 2020

- Scaled AI, robotics, and ML systems globally, driving \$100M+ in investments and revenue.
- Built and led a 20+ member R&D team, mentoring contributors and managers.
- Led ML projects for large-scale data analysis, anomaly detection, and monitoring in 20k+ robotic fleets.
- Architected AI/ML stacks for safety-critical autonomous systems (Perception, SLAM, Motion Planning).
- Strong individual research contributor. Authored 35+ patents; delivered 9+ invited talks at research universities.
- Created company-wide design and coding guidelines. Organized cross-team development, continuous integration, and release process.

Senior Research Scientist
Research Scientist

Apr 2014 – Oct 2017
Oct 2010 – Apr 2014

- Deep Learning, RL, and Behavioral Cloning across robotics (manipulation, UAVs), securing \$10M+ in funding.
- Developed product-level autonomous indoor navigation with on-board online Deep Learning.
- Built end-to-end software and simulation tools (Unreal, Bullet) for autonomous robots.

EDUCATION

Moscow Power Engineering University

PhD (Computational Neuroscience)

2008 – 2011

- Thesis on Reinforcement and supervised learning in spiking neural networks.
- Designed a scripting language and a spiking neural networks engine.

MSc/BSc Hons (Robotics, Motion Planning)

2002 – 2008

- Main developer of motion planning, multiagent behavior, and physics simulation in robotic soccer team. Winner of virtual robotic soccer competition.

System Software Engineer

2008 – 2010

- Developed a city-scale distributed system for traffic rule violations and face detection.
- Built optimized core libraries for object memory management and distributed communication.

TECHNICAL SKILLS AND HIGHLIGHTS

- **Resources:** [Invited Talks \(CVPR, CoRL, WACV\)](#), [Publications \(ECCV, ICRA, 60+ patents\)](#) (h-index: 27, citations: 3k), [Software blog](#).
- **Machine learning:** Multimodal Language Models, Video Language Action models, LLM Agents, Reinforcement learning: Model-free, Model-based, Offline, Inverse, MCTS, Behavior Cloning, World Models, NERFs, Dataset optimization.
- **Robotics:** Sensory fusion; Perception; Bayesian Probabilistic programming and filters, Life-long SLAM; Planning; Exploration; Safety systems.
- **Software and tools:** Python, C++; Git, Linux; PyTorch; ROS; AWS and Azure; Simulation (Unreal Engine, CARLA); Profiling and optimization.
- **Code samples (Python/C++):** [motion planning gym](#), [Python/C++ bindings for a planner](#), [Web3 project](#).