Ignat Georgiev 🤖

Applied Scientist | Robot Learning

I'm passionate about advancing robot learning through large-scale, data-driven methods. Set to complete my PhD in 2025 under **Animesh Garg**, I focus on **Reinforcement Learning**, **Behavioral Cloning**, large **world models**, and **optimization** theory. I pair a rigorous scientific approach with strong engineering skills and a pragmatic, can-do mindset essential for making everyday robots a reality..

Selected Publications

PWM: Policy Learning with Multi-task World Models
Ignat Georgiev, Varun Giridhar, Nicklas Hansen, and Animesh Garg
International Conference on Learning Representations (ICLR), 2025

Adaptive Horizon Actor-Critic for Policy Learning in Differentiable Simulation
Ignat Georgiev, Krishnan Srinivasan, Jie Xu, Eric Heiden, and Animesh Garg
International Conference on Machine Learning (ICML), 2024

Work Experience

Senior Machine Learning Engineer | *Tesla, USA*   2025
• Scaling AI for robot decision-making

Research Intern | *The AI Institute, USA*   Aug - Dec 2024
• Research on multi-task world model policies for real-world dexterous manipulation

Applied Scientist | *Oxbotica, UK*   2021 - 2022
• Developed adversarial agents using RL and meta-learninig for edge-case scenario discovery for autonomous vehicles as part of the MetaDriver product
• Worked with Python, PyTorch, and large-scale clusters and distributed training

Research Engineer | *Kopernikus Automotive, Germany*   2020 - 2021
• Worked on autonomous valet parking product based on external cameras
• Designed a hybrid path planning system for parking combining random sampling and numerical optimization in Rust and C++
• Successfully led a project to integrate with 5 OEMs and demo product at IAA

Founder & AI Team Lead | *Edinburgh University Formula Student*   2017 - 2020
• Founded and led a student project to develop an autonomous racecar
• The team won 2 international competitions and raised a budget of over £70,000
• Architected and led the development of the AV stack with ROS / C++ / Python

Education

PhD Machine Learning
Georgia Institute of Technology, USA   2022 - present

• Graduating 2025; finishing thesis in industry

MSc Robotics and Artificial Intelligence
The University of Edinburgh, UK   2015 - 2020

• First-Class Honors (4.0 GPA)
• Focus on linear algebra, probability, robotics, ML, RL, and optimal control
• Thesis: Adaptive Motion Control for Autonomous Racing

Contact Details

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GitHub: imgeorgiev

Technical skills

Python

PyTorch

C++ (11/14/17)

Rust

ROS / ROS2

Reinforcement Learning (RL)

Behaviour Cloning (BC)

World Models

Distributed Training

Differentiable Simulations

ML Infrastructure

Optimization Methods

Professional Skills

Cutting-edge Research

Algorithm Design

Teamwork

Project Management

Leadership

Honors & Awards

Inspirational Graduate

Best Robotics Thesis

Student Employee of the Year