

# Ignat Georgiev

## Research Engineer | Robotics & AI

Young professional with a passion for Robotics and AI / machine learning on a mission to make intelligent Star-Wars-like robots commonplace. I am eager to work on bleeding-edge innovative products and contribute to team success through my unique skill set, experience, agility, and drive. Most effective in research software engineering and project management positions.

## Work Experience

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### Robotics Engineer

*Kopernikus Automotive, Germany*

August 2020 - Nov 2021

- ✓ worked on autonomous valet parking product with deep learning CV and Rust
- ✓ successfully led a project to integrate with 5 OEMs and demo product
- ✓ responsible for environment modeling, path planning, numerical optimization, motion control, and behavior prediction

### Founder & AI Team Lead

*Edinburgh University Formula Student, UK*

September 2017 - June 2020

Established a student project to develop an autonomous racecar. Led a passionate team of 40 to win 2 competitions and have raised a budget of over £70,000. Designed and led the development of an AV stack incl. Deep learning camera and lidar object detection, multi-sensor state estimation, particle filter SLAM, path planning, model predictive control, functional safety, software integration, CI/CD, and custom simulation. All in ROS / C++ / Python.

### Research Engineer

*Roborace, UK*

June 2019 - September 2019

- ✓ Developed a reference autonomous driving software stack
- ✓ Path planning, tooling, interoperability, and deployment

## Education

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### MSc Robotics and Artificial Intelligence

*The University of Edinburgh, UK*

2015 - 2020

- ✓ First-Class Honours (4.0 GPA)
- ✓ Focus on linear algebra, probability, robotics, machine learning, reinforcement learning, and optimal control
- ✓ Thesis: Adaptive Motion Control for Autonomous Racing using reinforcement learning under Prof Michael Mistry. Published as a research paper at Conference of Robot Learning 2020.

## Contact Details

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GitHub: [imgeorgiev](https://github.com/imgeorgiev)

## Technical skills

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C++ (11/14/17)

Rust

Python

PyTorch

CUDA

ROS & ROS2

Unix / Linux / bash

Git / Gitlab CI / Jenkins

Robot simulators

Algorithms & Structures

Data Science

## Professional Skills

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Analytical thinking

Teamwork

Project Management

Leadership

## Honours & Awards

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Inspirational Graduate

Best Robotics Thesis

Student Employee of the Year