# **IGNAT GEORGIEV**

Robotics & Al Engineer



## ABOUT ME

Enthusiastic, dedicated and hard-working student graduating my from my Master's in 2020. I am passionate about robotics and believe that with the help of AI they will cause the next industrial revolution, and I would like to be part of it! This belief led me to establish an autonomous racecar student project within my university.

### **CONTACT ME**

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#### LANGUAGES

English - proficient Bulgarian - proficient German - beginner

#### WORK EXPERIENCE

Jun - Sept 2019 SOFTWARE ENGINEER INTERN @ ROBORACE

Developed a reference **autonomous driving software stack**. Involved in a variety of projects incl. **software deployment, localisation, motion planning & control and optimization**.

2017 - 2018 INTERN @ INDIE SEMICONDUCTOR

Worked on firmware development for custom microcontrollers for IoT and automotive applications.

### **EDUCATION**

2015 - 2020 MSC ROBOTICS & AI @ UNIVERSITY OF EDINBURGH

Focus on Maths, Robotics and Machine Learning. Exposure to physics, electronics, IoT and RL Dissertation on Dynamic Path Planning and Control for an Autonomous Racecar in collaboration with Roborace

Online courses Self-driving Car Engineer Nanodegree @ Udacity

Autonomous Mobile Robots @ ETH Zurich Artificial Intelligence for Robotics @ Udacity Deep Learning Specialisation @ Coursera

## **PROJECTS**

**Established an autonomous racecar student project** to participate in the international **Formula Student** competition. Led a passionate team of about 40 students for 3 years and 2 victories in the UK competition, raising a budget of over £50,000. This allowed me to obtain **practical hands-on experience** in robotics, camera & lidar perception, state estimation, SLAM as well as develop my **team working, management, leadership and communication skills.** 

**Built and programmed my own racing drone** capable of reaching 160 kph. Actively contributing to an **open-source drone flight control software.** 

Developed a distributed compute cluster for student makerspace.

Developed an **end-to-end Reinforcement Learning algorithm** to drive a car in simulation based only on camera images.

Designed an embedded IoT Weather Widget for home automation.

#### **SKILLS**

C/C++	PyTorch	Operating systems (UNIX)
Python	Tensorflow	Distributed computing
ROS	VC / git	Parallel programming
CUDA	CI & CD	Robotics simulators