Deep Learning Based Object Detection for an Autonomous Robot

IDP Informatics

Angsa revolutionizes the removal of trash on grass and gravel: Individual objects are detected by an artificial intelligence and removed by the autonomous robot.

The goal of this project is to develop an improved object detection for small trash items on grass and gravel. This is done by implementing and improving approaches from literature and adapting them to the special use-case and dataset.

Your Tasks

- Literature review to object detection with a focus on required computing power
- Implementation and training of different solutions (YOLOv3, EfficientDet...)
- Comparison and iterative adaptation
- Integration in the robot system via ROS2
- Evaluation on test data and real-world experiments

Your Profile

- Enrolled in Robotics, Informatics, Data Engineering, etc.
- You like solving complex problems
- Motivation to work with the state-of-the-art in object detection
- Knowledge and experience in design and training of neural networks
- Good Python skills
- Team spirit and good communication skills

What We Offer

- High-tech start-up: Angsa combines cutting-edge technologies from software and hardware
- Young team and startup culture: Team events, flat hierarchies, flexible working hours
- Responsibility and leadership: Good work and ownership are rewarded at Angsa
- Find your own path: You can play a decisive role in shaping your role in the team
- Real-world impact: The modules developed by you will be used in pilot projects with customers
- A workplace for you in our office, access to the Makerspace, coffee & snacks

Sounds Interesting?

Send us an e-mail with a short description of your skills and motivation. If you have questions about the job or about us, please call us or come by.

Not the right topic yet? Send us an unsolicited application and we will find a suitable position in our team together!

Find us in the TUM Incubator: Lichtenbergstr. 6 Campus Garching

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