Machine Learning Engineering for Autonomous Robots in Agriculture
Interdisciplinary Project

Solve complex robotics problems and help the first generation of autonomous farming robots to succeed.

About Dahlia Robotics
Dahlia Robotics’ vision is to remove the need for herbicides in agriculture and make organic food production the standard.

To achieve this, we build farming robots which autonomously take care of tedious tasks like weeding. Our robots automatically recognize crops and weeds on the field through computer vision and machine learning techniques and remove the weeds through mechanical tools.

We are a multidisciplinary team with backgrounds in computer science, electrical and mechanical engineering, geocology and UX design, heavily supported by local farmers.

What we offer
- Startup Environment: Innovative team with flat hierarchies
- Apply your software engineering skills in a real-world setting on autonomous machines
- Flexible working times (fully remote, attending field tests possible but not required)
- IDP supervision already organized with TUM Entrepreneurship Research Institute
- Direct positive impact of your work on the environment

Project Description
- Earliest start date: Now. You can apply alone or in a team of two.
- Contribution to the architecture and design of our internal data management and learning framework
  - Development of workflows and tools for training, evaluation and deployment of ANNs
  - Improvement of delay-tolerant transfer of data off of our distributed robot fleet
  - Extension of our ANN model assisted data annotation tool
  - Efficient data storage and retrieval systems for big image data sets
  - Model deployment under real life conditions in an agricultural environment

Who you are
- Enrolled master student in computer science, electrical engineering, robotics or related field
- Good programming skills in either C++ or Python
- First practical experience writing robust, production-ready, clear, reusable and tested code
- Some experience in handling databases (SQL, NoSQL) and containerized architectures on server infrastructure
- Background in Machine Learning (First experience with PyTorch is beneficial)
- Enthusiasm for mobile and intelligent robots and (organic) agriculture

Contact - Please send your application via email to idp-mlengineer@dahliarobotics.com - By sending your application you confirm you have read, understood and agreed to the GDPR provisions described in https://dahliarobotics.com/datenschutzerklarung/