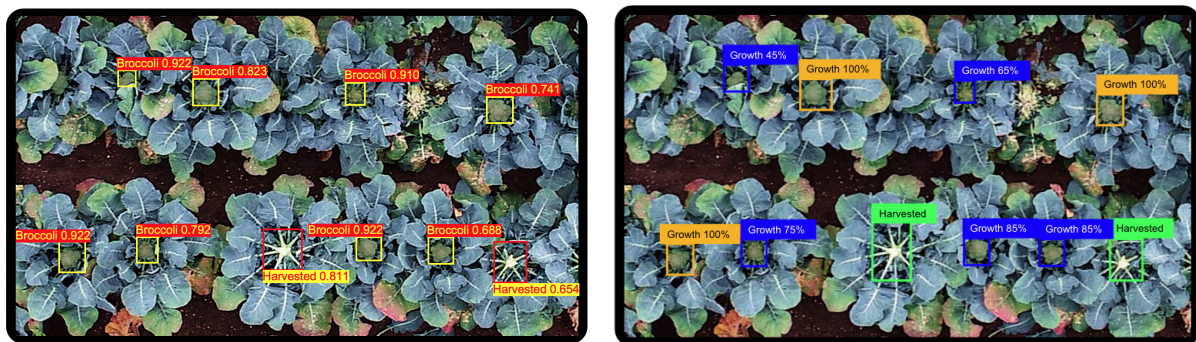VanBoven

Detecting the invisible:
accurately size partially occluded broccoli heads
VanBoven Internship

Ever thought your knack for technology could change the way we feed the world? At VanBoven, we make agriculture more data-driven by developing predictive solutions using drone imagery and AI. We currently have an internship position open, so grab your chance and join us on our mission.

Job Description
At VanBoven we have developed proprietary Deep Learning technology to automatically analyze agricultural drone imagery. In fields with over 150k plants, our algorithms are able to identify every single one of them. We determine every plants' size, and compare it with previous recordings to establish growth patterns. When harvest time comes around, we take it to the next level and determine which broccolis, lettuces and cabbages are ready to be harvested.

We are faced with a challenge concerning incomplete visual inputs: sometimes the vegetables we are trying to measure are partly covered by leaves.In general, humans are able to give a good size approximation based on this incomplete image - we use our imagination to complete the object's shape. Could a machine do the same? That's the question you will be working on.

What will you do?

- Determine your approach at the crossroads of Deep Learning, Computer Vision and Neuroscience.
- Create a labeled dataset for training and testing of your models.
- Setup experiments to evaluate your work.
- Optimize deep neural network architecture to finetune performance.

What do we expect from you?

- Msc. level thinking with analytical focus and hands-on mentality;
- Not afraid to dive into research literature
- Good understanding of object detection models
- Hands-on experience with implementing custom deep learning architectures
- Experience with Python and relevant libraries (e.g. OpenCV, keras, tensorflow, PyTorch)
- Available for at least 5 month;
- Fluency in English. Dutch is a bonus.

What we offer

- €300/month full-time internship reimbursement.
- Hands-on learning about Deep Learning in industry.
- Flexible work hours and location.
- Travel allowance.
- Being part of a quickly growing team and startup.

Interested? Please send your CV and a short motivation to me (kaz@vanboven-drones.nl) and I will get in touch with you as soon as possible. Any questions, remarks, tips, feel free to get in touch with me over mail.