Deep Learning towards Label Generation and Object Detection in a Kitchen Environment

Kitchen of the Future
We believe that tomorrow’s kitchens will be safe and stress-free. Thanks to technology.

Fewer people than ever want to work in gastronomy kitchens. Our robotic kitchen assistant Fred gives kitchen staff a helping hand, making their work more efficient and enjoyable at the same time. Empowered with a state-of-the-art vision system and a sleek food-grade appearance, Fred’s favorite pastime is grilling hamburger patties autonomously, but he is eager to learn many more tasks.

Why join us
You will be at the heart of a young company. Right from the start you will take responsibility and self-direction. You’ll profit from a direct and open working culture with a focus on learning and growth. You will have flexible working hours at our office at TUM Incubator on Garching University Campus. Prepare to become a part of the vibrant Munich Tech Startup community and establish valuable contacts.

Your opportunity
- Devise a reinforcement/active learning scheme that suggests bounding boxes and labels for kitchen utensils and ingredients in video clips [1] [2]
- Implement additional tools to speed up the labelling process [3] [4]
- Implement transfer learning in Keras on a state of the art multi-object detector (SSD) [5] using the newly labeled data
- At the end you have a system that can swiftly learn to recognize new ingredients with high accuracy and minimal effort from humans

Your skills
- Bachelor or Master Student in Informatics or related fields
- Experience with Neural Networks (Keras / Tensorflow etc)
- Seek responsibility actively
- Hold yourself to a high standard
- Motivated to work in a startup environment
- Fluent in English or German

Do you want to make Fred’s fantastic journey come true? If you think you are a good fit, we strongly encourage you to reach out to us.

Contact:
Tobias Gottwald, tobias.gottwald@gastrobotics.com, +49 170 23 999 43


