craftworks

Talent Programme 2019

At craftworks, we build **prize-winning Artificial Intelligence** solutions for the Industry. We use state-of-the-art Computer Vision, Natural Language Processing, Machine Learning and Deep Learning techniques to solve hard industrial problems using data. Also, we do cutting-edge research to push the boundaries of what is possible. **This is where you come in.**

We offer students to work on the following **thesis topic** (Bachelor/Master/Diploma):

Document Denoising with Unsupervised Deep Learning

The digitization of documents, such as scanning or photographing, often introduces undesired artifacts into the image. This makes the documents harder to read for humans and poses a significant problem to many Optical Character Recognition (OCR) tools.

Details

The goal of this thesis is to use Unsupervised Deep Learning (DL) approaches such as Autoencoders (AE) and Generative Adversarial Networks (GAN) with the objective of reducing common noise introduced to documents through their digitization (e.g. scanning). You will be provided with a large (>10,000 documents) dataset of scanned documents (PDF) and one of our experienced Machine Learning Experts as advisor. You are expected to develop and document different approaches and evaluate the results following best practices.

We expect

- Advanced (scientific/numerical) **Python** programming skills
- First experience and/or keen interest in **Deep Learning**
- **Solid mathematical** foundations (Linear Algebra, Calculus)
- **Outstanding** academic performance, practical experience and/or extracurricular activities (e.g. contributions to open source projects)
- **Structured** work style
- Willingness to define and follow a time plan with fixed **milestones**
- Commitment to complete the *practical part of the project* within **4 months**

We offer

- Experienced craftworks Machine Learning Expert as **industry advisor**
- Getting to know **cutting-edge Machine and Deep Learning projects** from the inside
- Young, **dynamic** company with flat hierarchies
- **Educational** opportunities
- **Company activities** such as board games, FIFA tournaments and sports events
- The successful completion of the project is **remunerated with EUR 2,000**

Contact

Please send your CV, transcripts of grades, proof of practical experience (e.g. letter of recommendation, "Dienstzeugnis") and a link to your github repository (if available) to talent@craftworks.at