

## › Master's thesis - AI-based Image Manipulation

### Work Environment

Increasing digitalization is changing the world of work and business in the automotive industry. Artificial Intelligence is playing a major role in this process. AI enables both the improvement of existing and the development of new disruptive technologies along the entire life cycle of vehicles. We, the department Machine Learning/ Data Analytics, have a central cross-sectional function in this context. ML Team, in particular, develops AI-based products with a focus on Computer Vision for various business areas of AUDI AG. Here, the team is involved in the entire process from data processing to the development of state-of-the-art AI architectures and their productive implementation. If you share the passion for AI, support our team with your thesis in a use case for AI-based image manipulation!

### Job Purpose/Role

- › Systematic literature review in the area of AI-based image manipulation
- › Identification and construction of suitable quantitative evaluation metrics
- › Model training and inference for the assessment and comparison of existing approaches
- › Development of a simple User-Interface for one of the approaches

### Key Requirements/Skills/Experience

- › Master's studies of one of the STEM disciplines
- › Very good programming skills in Python (further programming languages is a plus)
- › Excellent knowledge of modern Deep Learning
- › Excellent knowledge of ML-related tools (PyTorch, Numpy, Docker, etc.)
- › Experience related to Generative Adversarial Networks (GAN) and CLIP is beneficial
- › Besides your independent way of working, you convince with a rapid comprehension
- › You enjoy working in interdisciplinary teams and have excellent communication skills



### Additional Information

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This position is available from 01/12/2021 at AUDI AG in Ingolstadt. Applications must be submitted in electronic form via our job portal.

Just for reasons of easier readability, only the grammatical male form is used in person names. This always means people of every gender identity.

We embrace diversity, actively encourage inclusion and create an environment that fosters each employee's individuality in the interests of the company.

Job profile and application:  
[www.audi.com/vacancies](https://www.audi.com/vacancies)  
Reference Code: I-A-77296

Your questions can be answered by Mr.  
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