

# Artificial Intelligence and Machine Learning in Chemical Engineering

## Master Thesis

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### About us

We are the Process Intelligence Research group and our vision is to transform Chemical Engineering with Artificial Intelligence (AI). As a young and dynamic group, we are actively looking for excellent students. We are a strong team working in a supportive atmosphere on our vision. In our team the values diversity, inclusion, and equality are utmost important to us.

### The topic

This thesis is about the application and development of machine-learning & AI algorithms within chemical engineering. We offer a variety of projects related to deep learning, computer vision, data mining, process modeling, and process optimization. We apply our methods for the optimal design and operation of more sustainable processes in close collaboration with industry.

### Your profile

- Self-motivated
- Strong background in programming in Python
- Strong background in numerical methods
- Strong communication and presentation skills
- Ability to think creatively and solve problems
- Background in Chemical Engineering
- Familiarity with deep learning (e.g., PyTorch) advantageous
- Familiarity with process modeling and optimization advantageous

### Our offer

You will work on the fore-front of AI in Chemical Engineering on an relevant project. During your thesis, you will gain AI expertise and develop valuable skills for your future career. We offer you a strong support during your thesis and a nice team.

### Interested?

Then contact us at [a.schweidtmann@tudelft.nl](mailto:a.schweidtmann@tudelft.nl) and include your CV and a grade overview. Please also mention the intended starting date of the thesis and describe your general expectations.

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[More information](#)



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