### Title:
Machine Intelligence Lab

### Abbreviation:
EVA_MILab

<table>
<thead>
<tr>
<th>Credits</th>
<th>3 ECTS</th>
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<tbody>
<tr>
<td>Provider</td>
<td>CAI</td>
</tr>
<tr>
<td>Proof of performance</td>
<td>Successful completion of MOOC Successful participation in Hackathon with final presentation</td>
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<tr>
<td>Beginning</td>
<td>First week of fall semester, by arrangement</td>
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### Abstract (max. 300 characters)
You complete a public MOOC in the area of machine intelligence, guided by your ZHAW lecturers. After successful completion, you put your acquired skills to the test in a one-week hackathon. This way you gain broad application know-how in a specialized area of machine learning.

### Didactic approach and style
Part 1: You successfully complete a public MOOC in the area of machine intelligence of ca. 12 weeks duration, including solving all lab assignments needed to pass. You will be mentored in ca. bi-weekly colloquia by your ZHAW lecturers. The first part is finished with the (free-of-charge) certification of successful graduation from the MOOC provider.
Part 2: You undertake (single or in a small group) a one week hackathon: You will be given a machine intelligence project by your lecturers (problem description, data) at the morning of the first hackathon day. On the evening of the final day, you give a presentation on your proof of concept implementation with an outlook for future work.

### Language
English

### Content and educational objectives
You gain skills in a selected machine learning area besides what is covered in central modules:
- You gain theoretical understanding of the methods and test it practical programming exercises
- You are able to apply your skills properly and targeted in machine intelligence projects
- Thus, you are able to assess and demonstrate the feasibility of project ideas

### Admission requirements
Undergraduate level skills in programming, linear algebra, probability theory, descriptive statistics

### Literature
As common machine learning and deep learning is well covered in the MSE curriculum at the moment, we will likely look into some specialized topics such as reinforcement learning (e.g., ...
## Complementary module of the School of Engineering (EVA)

| Special regulations | You are admitted to part 2 if and only if you have solved successfully all labs/programming exercises for part 1 of the course (as documented by your earned certificate). You pass this module if your final presentation of the hackathon demonstrates reasonable application of the taught skills from part 1. |
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