Protein Prediction II
Winter 18/19
for Computer Scientists
for Bioinformaticians
## Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.10.</td>
<td>Introduction</td>
</tr>
<tr>
<td>1.11.</td>
<td>No exercise</td>
</tr>
<tr>
<td>8.11.</td>
<td>Build a machine learning pipeline</td>
</tr>
<tr>
<td>15.11</td>
<td>Optimize Word2Vec parameters</td>
</tr>
<tr>
<td>22.11.</td>
<td>Discuss W2V optimizations</td>
</tr>
<tr>
<td>29.11.</td>
<td>Present ‘final’ W2V optimizations</td>
</tr>
<tr>
<td>6.12.</td>
<td>No Exercise, Dies academicus</td>
</tr>
<tr>
<td>13.12.</td>
<td>Present current progress</td>
</tr>
<tr>
<td>20.12.</td>
<td>No exercise session</td>
</tr>
<tr>
<td>10.1.</td>
<td></td>
</tr>
<tr>
<td>17.1.</td>
<td></td>
</tr>
<tr>
<td>24.1.</td>
<td>Final presentations w/ Prof. Rost</td>
</tr>
<tr>
<td>31.1.</td>
<td>Q&amp;A Session</td>
</tr>
<tr>
<td>7.2.</td>
<td>Exam</td>
</tr>
</tbody>
</table>

29.11.2018
## Exercise groups

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nabil</td>
<td>Sofie</td>
<td>Kayalvizi</td>
<td>Marla</td>
<td>Jinlong</td>
<td>Felix</td>
<td>Muhammed</td>
<td>Francesco</td>
</tr>
<tr>
<td>2</td>
<td>Vanessa</td>
<td>Ghalia</td>
<td>Amrei</td>
<td>Vagram</td>
<td>Reza</td>
<td>Elisabeth</td>
<td>Mustafa</td>
<td>Muhammad</td>
</tr>
<tr>
<td>3</td>
<td>Lukas</td>
<td>Tobias</td>
<td>Corinna</td>
<td>Michaela</td>
<td>Chris</td>
<td>Issar</td>
<td>Abdulrahman</td>
<td>Silvia</td>
</tr>
<tr>
<td>4</td>
<td>Nathalie</td>
<td>Marco</td>
<td>Daniel</td>
<td>Rinita</td>
<td>Julian</td>
<td>Omar</td>
<td>Nail</td>
<td>Aynesh</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Martin</td>
</tr>
</tbody>
</table>
Tasks for the next two weeks

- Try to improve your prediction models however you want
- Some ideas
  - Try out other word2vec parameters for calculating the embeddings
  - Try out other hyperparameters
  - Try out different prediction models (e.g. SVM)
  - Increase the sliding window size as input for the network
  - Use something else to calculate embeddings, e.g. fasttext
  - Get creative… ;)
- On 6.12. there is no official exercise session but we are available for questions
- For 13.12. prepare a presentation as previously detailing the results of your optimizations

29.11.2018