

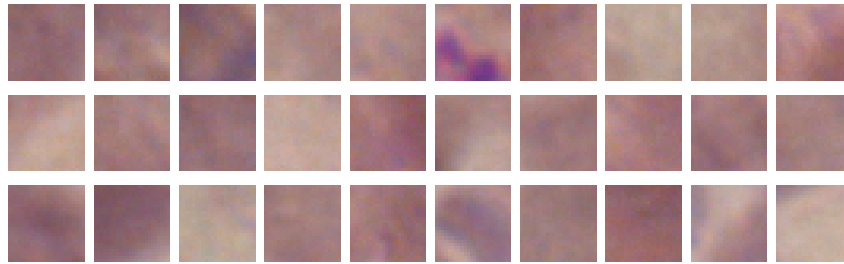
EXERCISE 3

DR. VICTOR UC CETINA

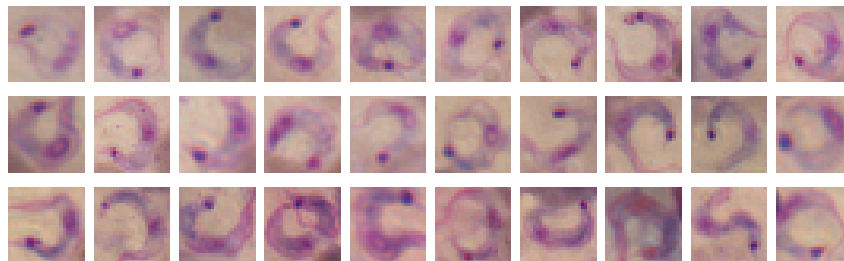
1. GAUSSIAN DISCRIMINANT ANALYSIS

- (1) Implement the Gaussian Discriminant Analysis model to create a binary classifier for Chagas parasites. There are 60 training examples available, 30 negatives (negatives.zip) and 30 positives (positives.zip). Choose at least 5 features that you consider useful.

Negative examples



Positive examples



- (2) Prepare a report containing your final model (including parameters) and the description of the features you used.

2. EXERCISE SUBMISSION

- Send your report to cetina@informatik.uni-hamburg.de with the email title string: **MLEX3 Lastname1-Lastname2-Lastname3**
- Deadline: A day before your next exercise session.
- Note: Do not forget to include your names in the report!

3. HINTS

Some useful matlab/octave commands for this exercise:

- To load an image `n01.png` into variable `i`
`i = imread("n01.png")`
- To convert a matrix `i` of data type `uint8` to data type `double`
`x = double(i)`
- To display an image previously loaded into variable `i`
`imshow(i)`
- To compute the mean of the red-green-blue components of an image saved as a matrix of doubles `x` and size is `24 x 24 x 3`
`m = mean(x,3)`