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Pattern Recognition

Exercise Session 5

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20.03.17

Schedule

Remarks on the group project

Tools

Group Building!

Teaser

First Group Task

Questions?

Remarks

- Real world …
  - Problem
  - Environment
  - Evaluation
- Benefits
  - Organize in a group
  - Project for your CV
  - Crucial tool experience

Tools

- Git / Github
  - Every team hosts a project
  - Try to use:
    - Branches
    - Issues
  - Invite us to the repo / send a link if public:
    lunatic, calamansi, powl7
- Programming Tools

  e.g. maven (Java)
- (Visualization Tools)

Group Building

→ https://www.strawpoll.me/12569359

Vote

- Pick a «team color» if you already have a preference

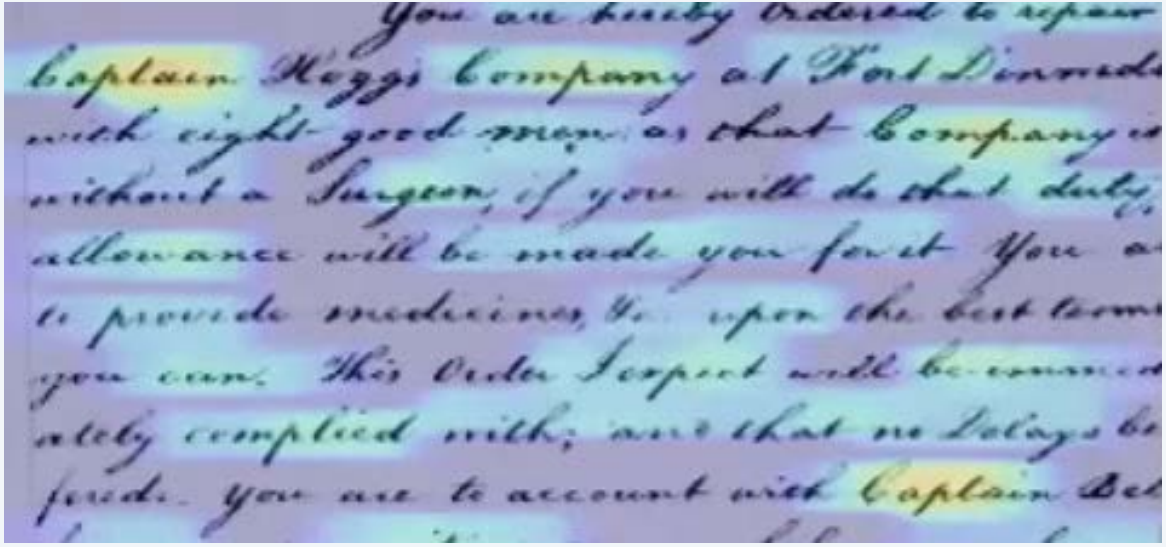
  We do not guarantee that this groups stay together

- Wait for further instructions

Schedule

Week	Exercise	Deadline
W05 - 20.3. L05	Ex 2a	W08
W06 - 27.3. L06	Ex 2b	W08
W07 - 03.4. L07		
W08 - 10.4. L08	Ex 3	W11
W09 - 17.4. -- (Easter)		
W10 - 24.4. L09		
W11 - 01.5. L10	Ex 4/5	W14
W12 - 08.5. -- (Team Work)		
W13 - 15.5. L11		
W14 - 22.5. L12	Presentation	
W15 - 29.5. -- (Q & A)		

Project Teaser – Exercise 4



https://vimeo.com/119938371

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First Group Project

Exercise 3a

20.03.17

First Group Exercise (3a)

Strictly defined task

To get you started as a team

Think a bit about design first

Task

- Apply SVM to the MNIST dataset
- Investigate at least **two** kernels

  e.g. linear, and RBF
- Optimize parameters using cross-validation

- Output
  - Average accuracy during cross-validation
  - Accuracy on the test set with optimized parameters

References

- General

  LibSVM: https://www.csie.ntu.edu.tw/~cjlin/libsvm/

- Java

  Weka: http://weka.wikispaces.com/LibSVM

- Python

  Scikit-learn: http://scikit-learn.org/stable/modules/svm.html

- Matlab

  Svmtrain: https://ch.mathworks.com/help/stats/svmtrain.html

Questions?