

Greek Letter Classifier aka GREEKNET

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Motivation

- Identifizieren griechischer Symbole in Texten

$$\xi_{t,t+1} \propto \Psi \odot (\alpha_t (\phi_{t+1} \odot \beta_{t+1})^T)$$

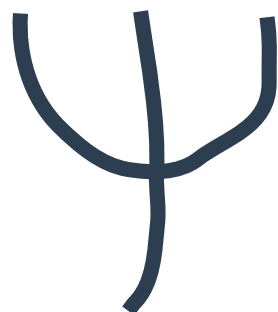
p.612 Machine Learning: A Probabilistic Perspective (K. P. Murphy, 2012 MIT Press)



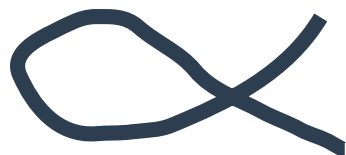
<http://clipart-library.com/clipart/106638.htm>

Lösung

- Klassifizieren handgezeichneter Symbole

A hand-drawn symbol in dark blue ink, resembling a stylized 'Y' or the Greek letter Psi (Ψ). It has a vertical stem and two curved branches at the top.

Ψ, ψ (psi)

A hand-drawn symbol in dark blue ink, resembling a stylized 'A' or the Greek letter Alpha (α). It has a loop on the left and a tail on the right.

A, α (alpha)

Roadmap

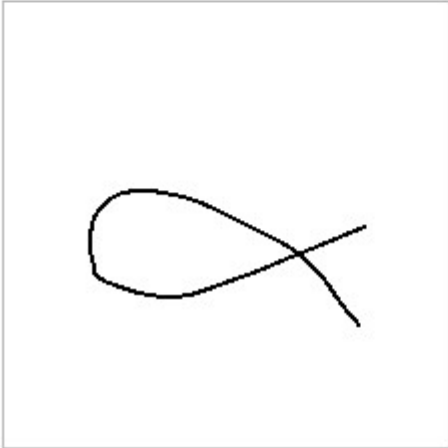
Dataset

→ GUI (PyQT5):

- Zeichnen
& Labeln**
- Speichern
der Bilder**

Labeling

Dialog



Save Clear

	1	2
1	Alpha	Ny
2	Beta	Xi
3	Gamma	Omikron
4	Delta	Pi
5	Epsilon	Rho
6	Zeta	Sigma
7	Eta	Tau
8	Theta	Ypsilon
9	Iota	Phi
10	Kappa	Chi
11	Lambda	Psi
12	My	Omega

TopLevel

/home/marci/GIT/greek-letter-classifier/test

Roadmap

Datenset

→ GUI (PyQT5):

- Zeichnen
 & Labeln
- Speichern
 der Bilder

Training Model

- **Tensorflow/**
Keras:
 - **Eigene 'plain'**
Modelle
 - **Transfer Learning**
- **Analyse**
unterschiedlicher
Datensatzgrößen
+ Data Augmentation

Roadmap

Datenset

→ GUI (PyQT5):

- Zeichnen
& Labeln
- Speichern
der Bilder

Training Model

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Inferenz

- **GUI**

- **Eingabe →
Klassifizierung**
- **PyQT5**
- **App/Website?**

Projektmanagement

The screenshot shows a Trello board titled 'GreekNet' with a blue background. The board is organized into five columns: 'ToDo Software', 'ToDo Organization', 'In Progress', 'Review', and 'Done'. Each column contains cards representing tasks or milestones. The 'ToDo Software' column has five cards: 'Dataset Creation', 'Analyze Precision of Models' (with a progress bar at 0/5), 'Model Transfer Learning' (with a progress bar at 0/2), 'Model Plain' (with a progress bar at 0/2), and 'GUI Classifier'. The 'ToDo Organization' column has five cards: 'Requirements', 'Specifications', 'Zwischenpresentation' (with a progress bar and a date 'Jun 17'), 'Presentation (Result)' (with a progress bar at 0/4), and 'Ausarbeitung'. The 'In Progress' column has two cards: 'GUI Dataset Creation' (with a progress bar at 5/8) and 'Presentation (Pitch)' (with a date 'May 14'). The 'Review' and 'Done' columns are currently empty, each with a '+ Add a card' button. The board header includes the name 'GreekNet', a star icon, and tabs for 'Personal', 'Private', and a group of users 'K MF 2' with an 'Invite' button.

GreekNet ☆ | Personal | Private | K MF 2 | Invite

- ToDo Software**
 - Dataset Creation
 - Analyze Precision of Models (0/5)
 - Model Transfer Learning (0/2)
 - Model Plain (0/2)
 - GUI Classifier
 - App Creation
 - + Add another card
- ToDo Organization**
 - Requirements
 - Specifications
 - Zwischenpresentation (Jun 17)
 - Presentation (Result) (0/4)
 - Ausarbeitung
 - GPU Cluster Nutzung
 - Weekly Backup Trello Boards
 - + Add another card
- In Progress**
 - GUI Dataset Creation (5/8)
 - Presentation (Pitch) (May 14)
 - + Add another card
- Review**
 - + Add a card
- Done**
 - + Add a card

Projektmanagement

GUI Dataset Creation

in Liste [In Progress](#)

Beschreibung

Detailliertere Beschreibung hinzufügen ...

Checkliste

Fertiggestellte Elemente verbergen

Löschen

75%

✓

Design

✓

PyQT5 QPainter Canvas

✓

Add labels (automatically or manually afterwards)

✓

Directory structure (one dir per label)

✓

Id like to have a notice, if you choose a directory where image folder is already there.

✓

Clear Button

Switch between lower/uppercase letters

Catch keyboard inputs to select labels/buttons

Element hinzufügen

Kommentar hinzufügen

MF

Schreiben Sie einen Kommentar...

@

😊

Speichern

Aktivität

Details anzeigen

ZU KARTE HINZUFÜGEN

Mitglieder

Labels

Checkliste

Frist

Anhang

POWER-UPS

[Power-Ups erhalten](#)

AKTIONEN

→

Verschieben

Kopieren

Beobachten

Abstimmen

Archiv

Teilen

9

GreekNet