Your Title

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Abstract

The text of your abstract. 200 or fewer words.

Keywords: 3 to 6 keywords

1 Introduction

Describe the dataset and and define the problem. Do not explain in detail the basics of ANNs as we did in the introductory lecture.

(Goodfellow et al., 2016)

Hope et al. (2017); Chollet (2018)

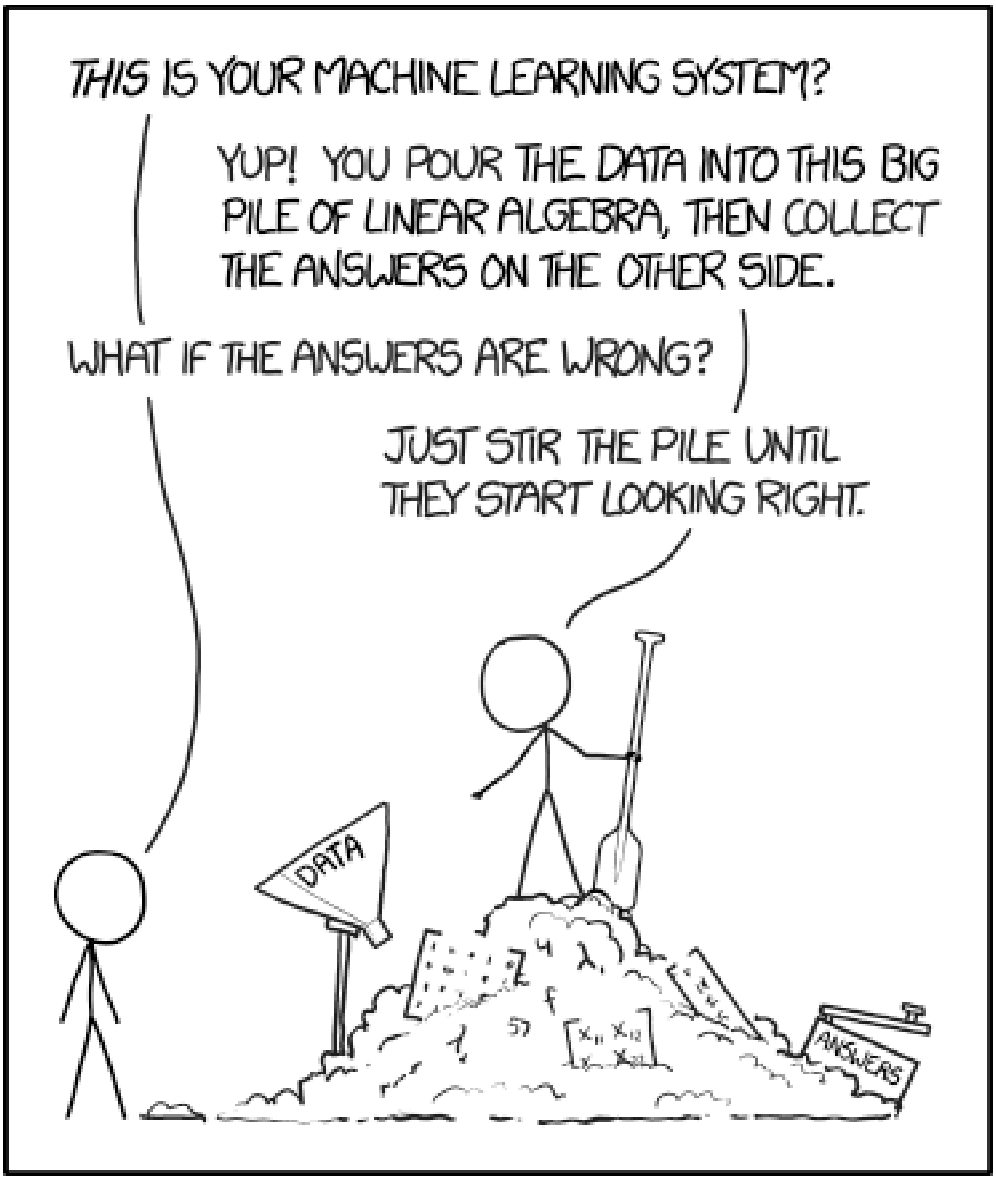

Figure 1: Caption

2 Methods

Describe the architecture of your net, the training and validation process, regularisation methods you used, ...

Beispiel des von uns gewünschten Pseudo-Code Layouts:

Algorithm 1 Major Iteration: Bound-Constraint Lagrangian

Require: initial weights $\boldsymbol{w}_0 \in \mathbb{R}^K$, multipliers λ^0, inital value penality parameter $\gamma_0 > 0$ and given total convergence tolerances for η_* and ω_*

for k = 1,2,... **do**

Using SQP finding an approximate solution for w_0 of the subproblem

$$\left\|\boldsymbol{w}_k - P\left(\boldsymbol{w}_k - \nabla_{\boldsymbol{w}}\mathcal{L}_A\left(\boldsymbol{w}_k, \lambda^k; \gamma_k\right), l, u\right)\right\| \leq \omega_k$$

if $\|c(\boldsymbol{w}_k)\| \leq \eta_k$ **then**

testing for convergence of given subproblem

if $\|c(\boldsymbol{w}_*)\| \leq \eta_* \wedge q_k(\boldsymbol{w}) \leq \omega_*$ **then**

stop approximate solution of w_k found

end if solution holds

Update the underlying multipliers

$\boldsymbol{\lambda}^{k+1} = \boldsymbol{\lambda}^k - \gamma_k c(x_k)$

$\gamma_{k+1} = \gamma_k$

else

If no valid solution was found and increase the penalties

$\boldsymbol{\lambda}^{k+1} = \boldsymbol{\lambda}^k$

$\gamma_{k+1} = 100\gamma_k$

end if

end for

3 Results

Describe the results of your analysis.

Beispiel des gewünschten Tabellen Layouts:

Table 1: Calculated weight for M1 (w_1) for different given variance ratios

τ_1^2	Mean	Std.Error
0	0.069	0.059
0.25	0.205	0.096
0.50	0.499	0.125
0.75	0.795	0.097
1	0.933	0.061

4 Conclusion

Discuss your results.

A Appendix

A.1 ..

References

Chollet, F. (2018). *Deep learning with Python.* Manning Publications Co, Shelter Island, New York. OCLC: ocn982650571.

Goodfellow, I., Bengio, Y., and Courville, A. (2016). *Deep Learning.* MIT Press.

Hope, T., Resheff, Y. S., and Lieder, I. (2017). Learning TensorFlow.