

QSAR biodegradation dataset classification using neural networks

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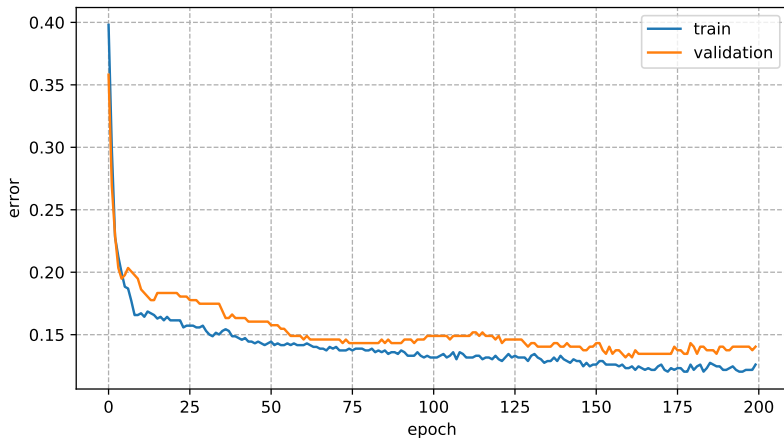
QSAR biodegradation dataset Kamel et al. (2013)

- ▶ classification dataset where the task is to predict whether a protein is bio-degradable based on its chemical properties
- ▶ published by Milano Chemometrics and QSAR Research Group
- ▶ 41 attributes in total, some real valued, other integer valued
- ▶ number of proteins in the dataset is 1055

Outline

- ▶ 3D environment simulators
- ▶ base algorithm
- ▶ our method
- ▶ experiments
- ▶ conclusions & future work

Single layer network training



Mansouri Kamel, Tine Ringsted, Davide Ballabio, Roberto Todeschini, and Viviana Consonni. Quantitative structure-activity relationship models for ready biodegradability of chemicals. *Journal of chemical information and modeling*, 53: 867–878, 03 2013. doi: 10.1021/ci4000213.