

Mining and Processing Biomedical Data

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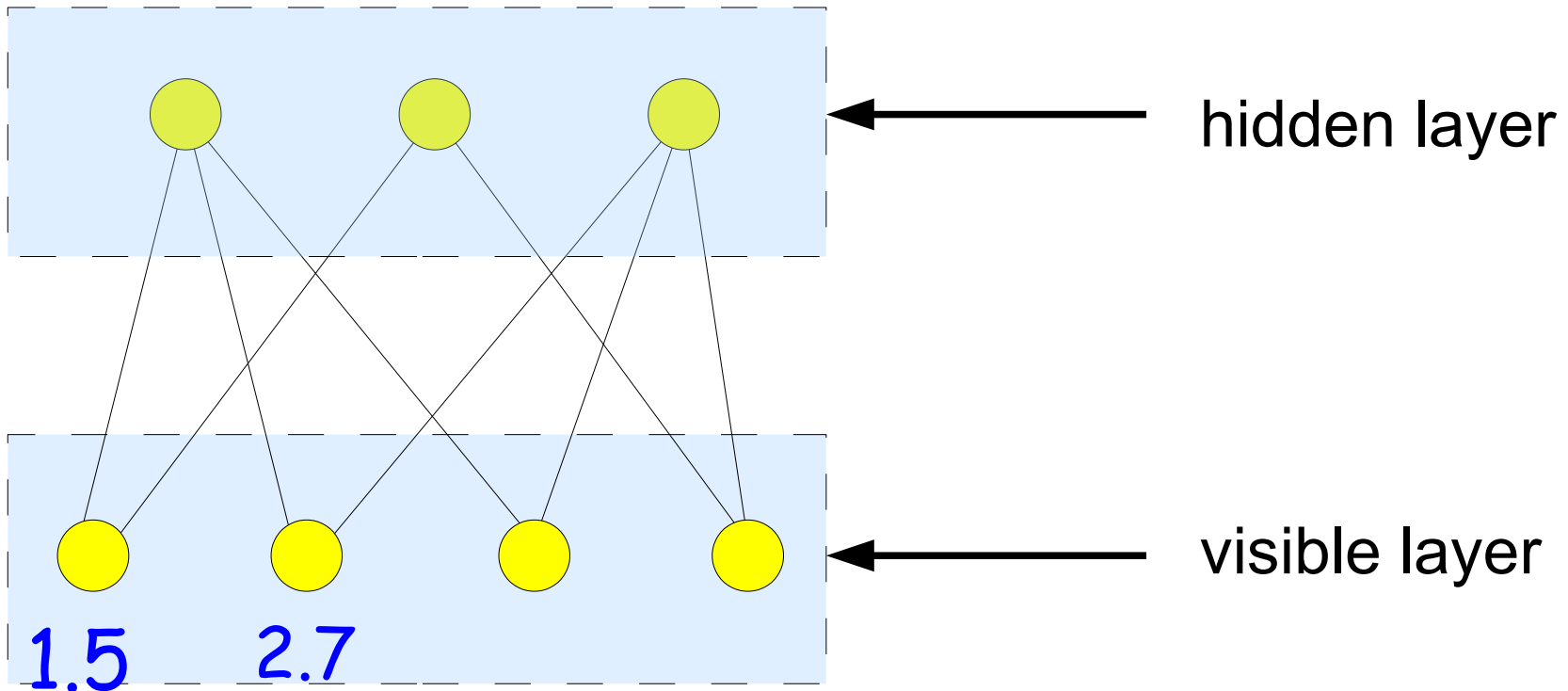
adiunkt naukowy

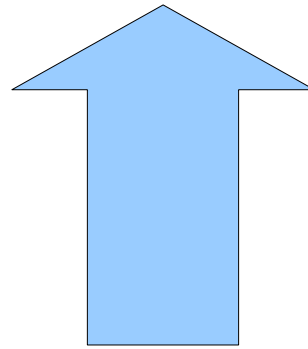
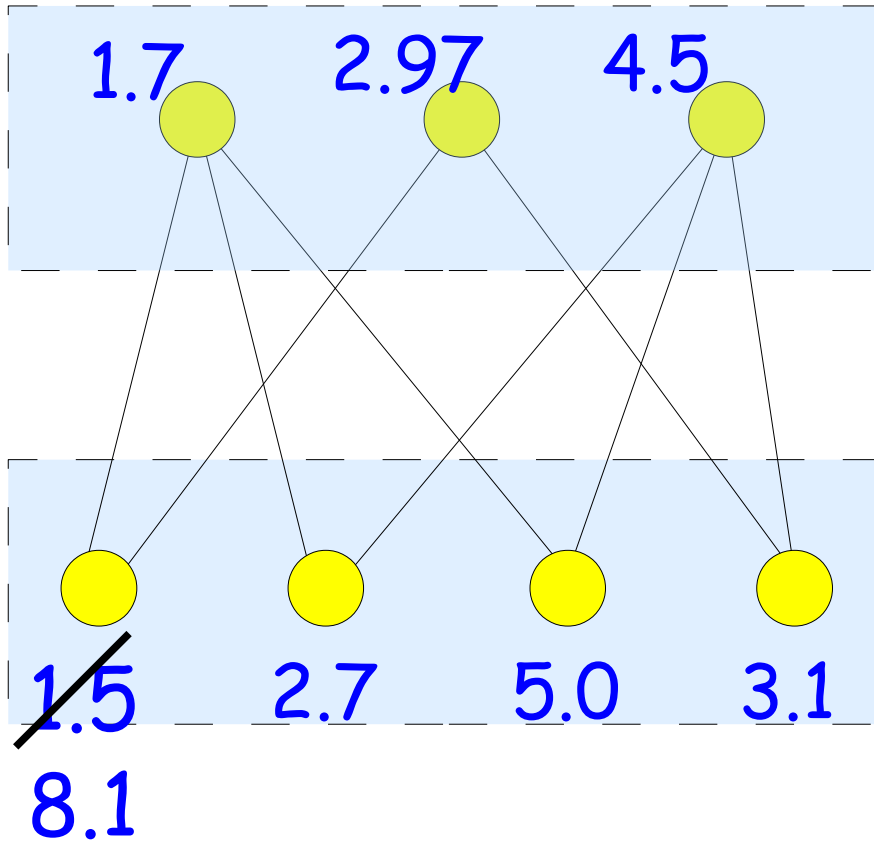
Faculty of Mathematics, Informatics and Mechanics

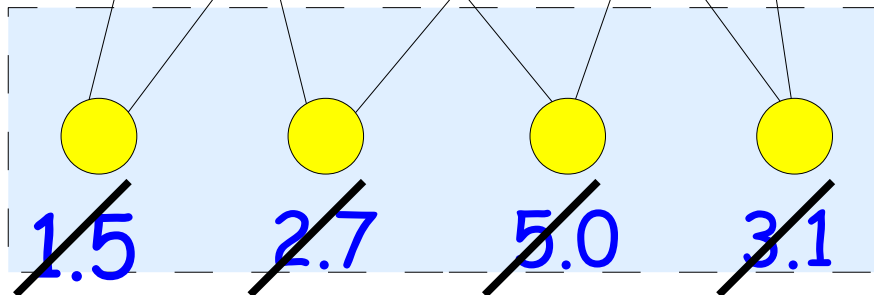
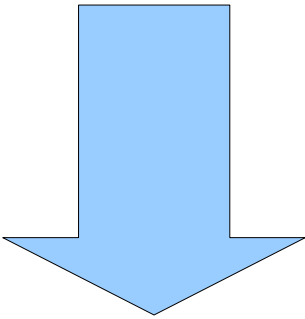
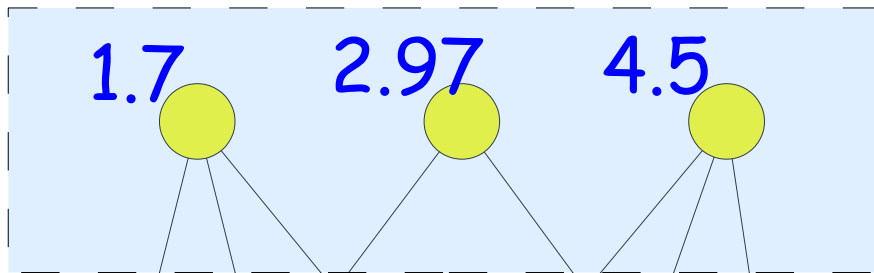
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Introduction to Restricted Boltzmann Machines (RBMs)

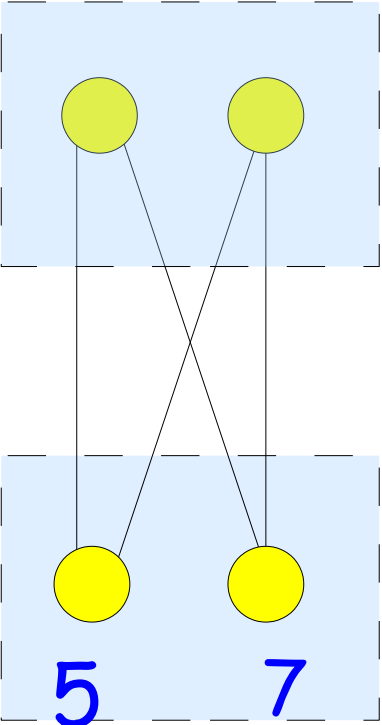




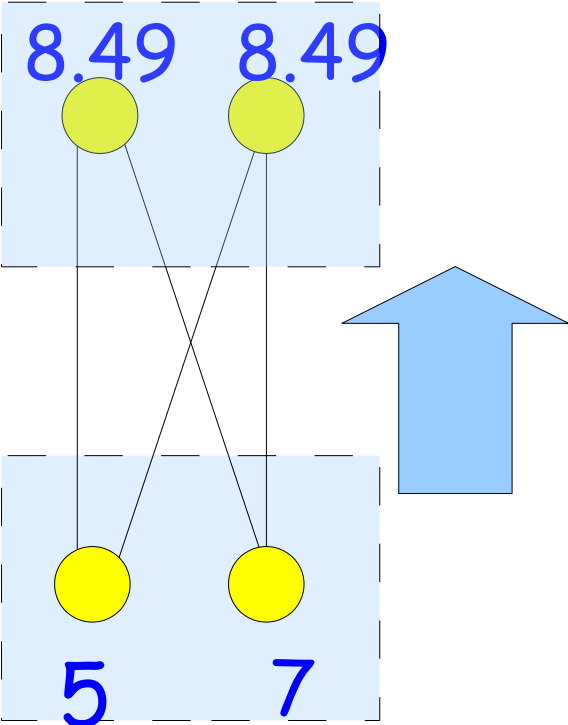


8.1 3.5 5.2 7.1

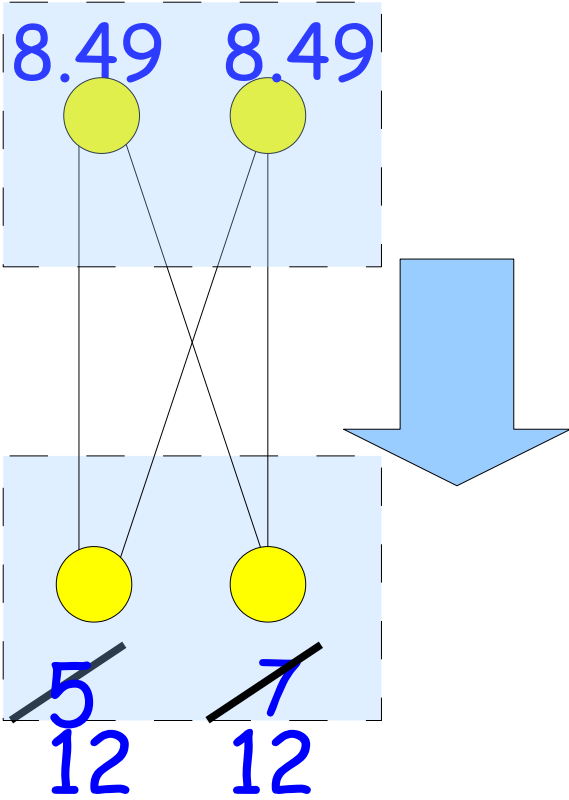
Example: sum of two numbers



1. User provides input



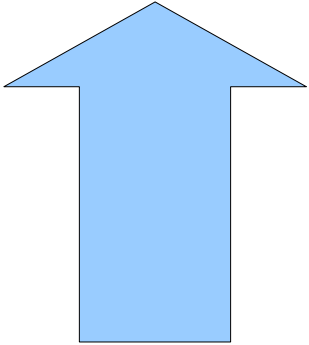
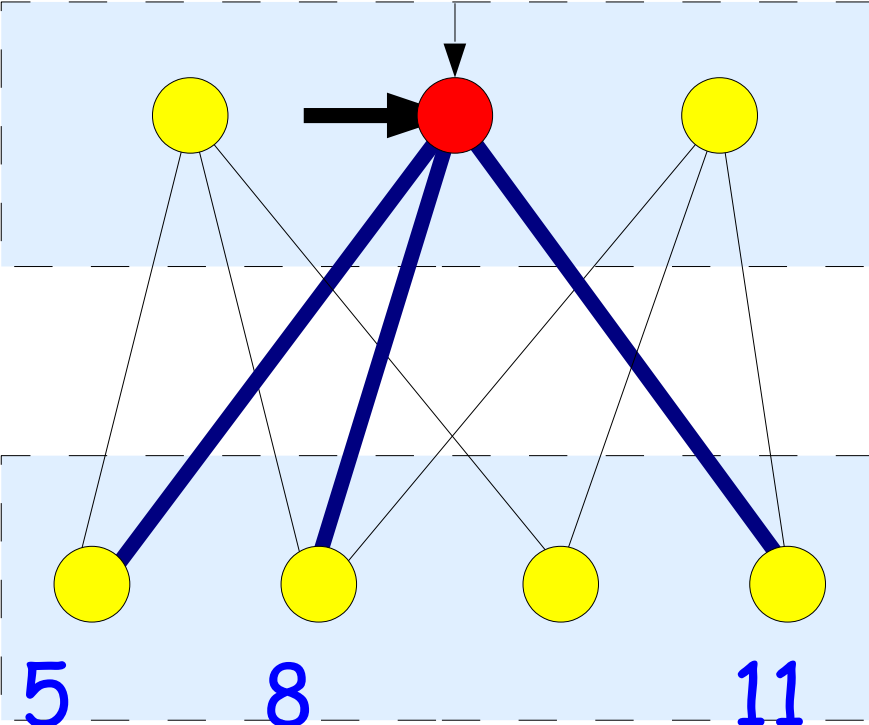
2. Information flows from the visible layer to the hidden layer



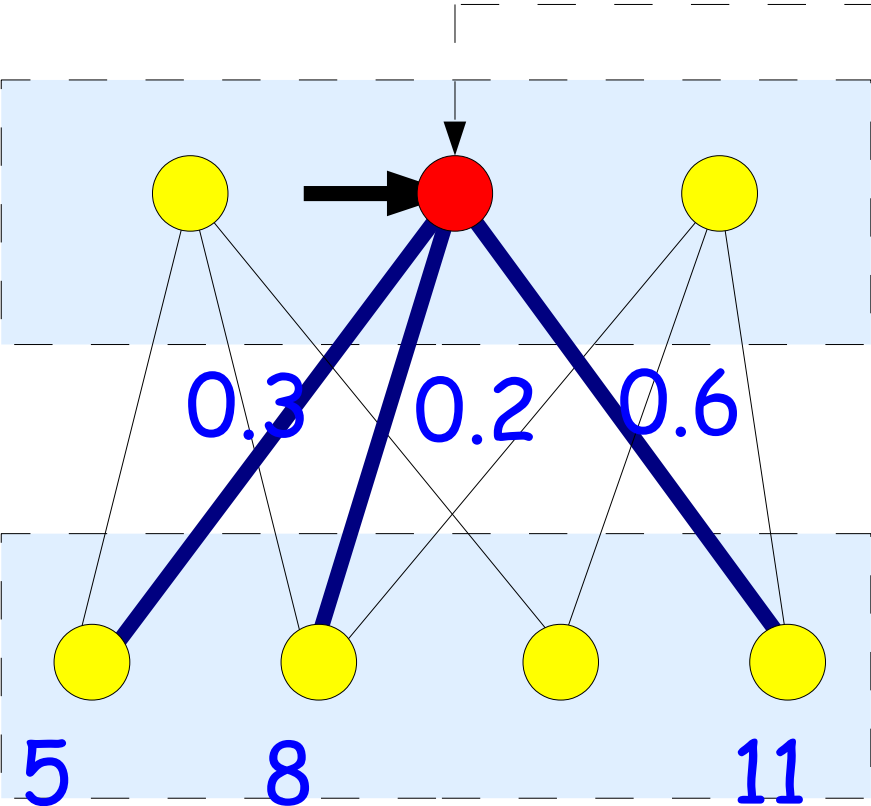
3. Information flows from the hidden layer to the visible layer

Information flow

$$5+8+11 = 24$$

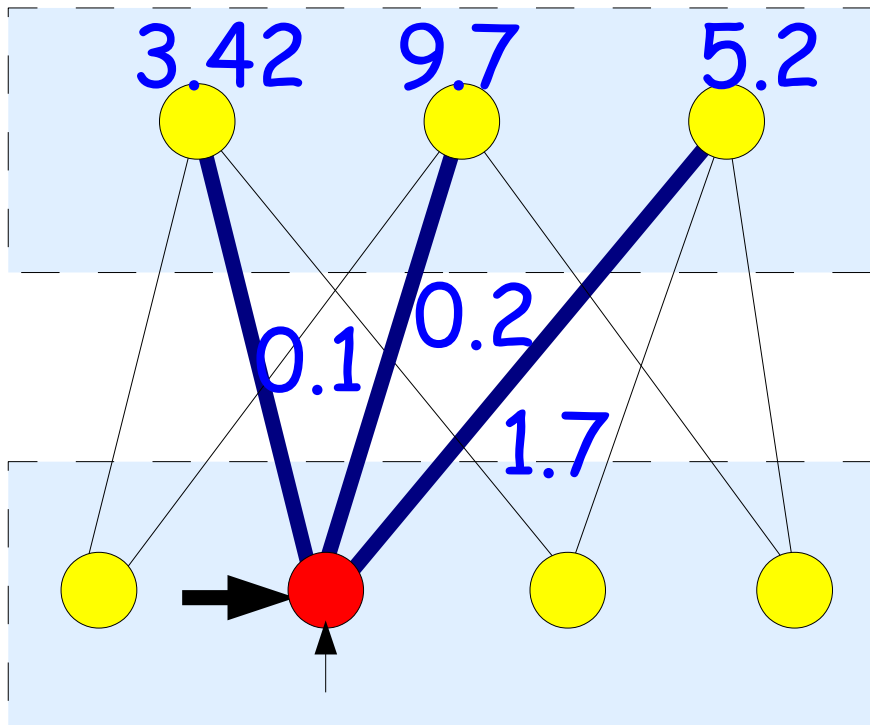


Information flow



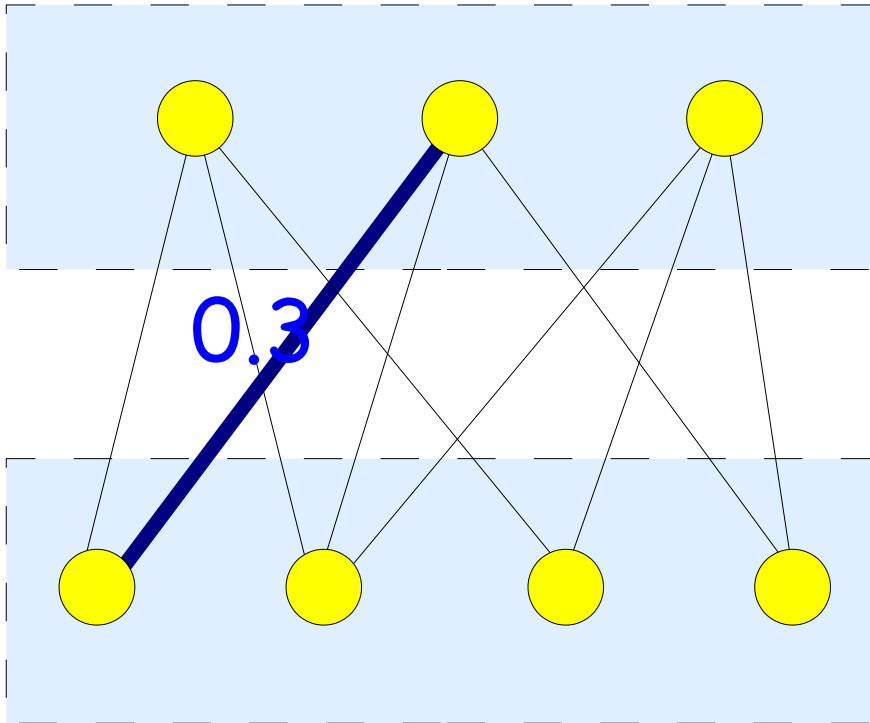
$$0.3 \times 5 +$$
$$0.2 \times 8 +$$
$$0.6 \times 11 = 9.7$$

Information flow



$$0.1 \times 3.42 + 0.2 \times 9.7 + 1.7 \times 5.2$$

Information flow



Example: sum of two numbers

