Exercise Sheet 3: Reading More Literature

Maximilian Marx, Sebastian Rudolph

Academic Skills in Computer Science, 2019-05-05, Summer Term 2020

Exercise 3.1. Find and read the following paper:

Valiant, L. G. (1984, December). A theory of the learnable. In: Proceedings of the sixteenth annual ACM Symposium on Theory of Computing (pp. 436–445). ACM.

1. Summarise the paper in two sentences.
2. Where and when was the paper published?
3. Who are the authors, and what are their affiliations?
4. What is the research question studied? Which solutions are proposed? How is the paper structured? What are the main contributions of the paper?
5. What are the strong points of the work? What are the weak points?
6. What did you find hard to understand? Which further information do you need?
7. Is the paper still relevant today?

Exercise 3.2. Find out what the following papers are about. Which additional literature did you use? Which of the results are still relevant today?

1. Volker Strassen (1969). Gaussian elimination is not optimal. Numer. Math. 13:4 (1969), 354-356.
2. Rump, S. M. (1983). Wie zuverlässig sind die Ergebnisse unserer Rechenanlagen? Jahrbuch Überblicke Mathematik, Bibliographisches Institut Mannheim, 163–168.
3. Borůvka, Otakar (1926). O jistém problému minimálním. Práce Mor. Přírodověd. Spol. V Brně III. 3: (1926) 37–58.
4. Levin, L. A. (1973). Universal Sequential Search Problems. Probl. Peredachi Inf., 9:3 (1973), 115–116.

Exercise 3.3. Find and read the following paper:

Stephen A. Cook. 1971. The Complexity of Theorem-Proving Procedures. In: Proc. 3rd Ann. ACM Sym. on Theory of Computing (STOC'71).

1. Summarise the paper in two sentences.
2. Where and when was the paper published?
3. Who are the authors, and what are their affiliations?
4. What is the research question studied? Which solutions are proposed? How is the paper structured? What are the main contributions of the paper?
5. What are the strong points of the work? What are the weak points?
6. What did you find hard to understand? Which further information do you need?
7. Do you know any papers that show similar results?