Magdalena Latifa

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Summary

Current student at University of Glasgow pursuing a BSc (Hons) degree in Computing Science, looking to gain experience in the industry. Particularly interested in fields such as Algorithmics, Theory of Computation, Artificial Intelligence and Machine Learning and open to broadening my areas of interest.

Education

University of Glasgow
2018 - present

BSc (Hons) in Computing science

- Year 2 grade point average for semester 1: 20/22 (Computer Science and Mathematics)
- Year 1 grade point average: 19/22 (Computer Science, Mathematics and German)

The International Baccalaureate
May 2018

Bilingual Diploma Awarded

- Higher level subjects: Mathematics (6/7) • Computer science (6/7) • English B (7/7)
- Standard level subjects: Physics (7/7) • Economics (6/7) • Polish A (5/7)

Projects

DLL and BST as Dynamic Set ADT (Github)

Individual

- Implemented the dynamic set abstract data type as a doubly linked list and a binary search tree in Java.
- Created a testing suite in order to assert correctness of both implementations.
- Extended the testing to allow users to use it as a metric for comparison between both implementations.

PySnakeAI (Github)

Collaborative

- Developed a Q-learning algorithm in Python to train an agent to play the PySnake game in collaboration with my colleague.
- Used Q-table and then replaced it with deep neural network to achieve a Deep-Q algorithm, resulting in improved agent performance.

Sorting algorithms (Github)

Individual

- Implemented advanced variations of quicksort as well as insertion and merge sort in Java.
- Designed a framework to analyse and demonstrate algorithms' performance based on their execution times.

TCP file transfer (Github)

Collaborative

- Created a TCP file transfer server and client implementation in Python.
- Developed utility algorithm to send number of packets and size ahead of file to ensure faultless transfer.
- Used the berkeley sockets API from the Python standard library.

Skills

Technical   Python • Java • Git • SQL • C/C++ • Bash • Unix
Languages   English (fluent) • Polish (fluent) • German (intermediate)

Extracurricular Activity

Glasgow University Technology society
October 2019 - present

Committee member

- Tutored at Machine Learning workshops.
- Helped with organising Hacker Olympics 2.0 2019 and Google Hashcode 2020 (Glasgow Hub).
- Participated in *Do you have the GUTS* hackathon 2019.

JPMC Code for good
October 2019

Collaborated on developing a mobile web app for a science centre that aimed at improving accessibility features as well as providing additional information about exhibitions in an interactive manner.