Everything that is in the current folder was written and prepared by Anna Boronina.

Acknoledgment to Khaled Ismaeel and Lev Chelyadinov. They helped me along the way and gave me the idea to use *length(_, PointsLimit)* in Backtracking Algorithm.

Current folder contains:

- **Report.pdf** - file that contains report and all the explanations (exported Report.md)
- **random_search.pl** - file that contains implementation of Random Search Algorithm
- **backtrack.pl** - file that contains implementation of Backtracking Algorithm
- **a_star.pl** - file that contains implemenation of A* Algorithm
- **helping.pl** - file that contains helping functions for 3 algorithms listed above
- **maps** - folder maps that contains 13 maps and results for them
  - **maps 1-3** were used for showing how algorithms respond to unexpected (yet valid, according to assignment description and my assumptions listed in Report.pdf) maps
  - **maps 4-10** are random maps for checking the optimal solution of Backtracking and A* Algorithms'
  - **mapSTAT**, **mapSTAT2** and **mapSTAT3** contain maps that were used for statistical purposes and they are used and discussed in Report.pdf
- **pictures** - folder that contains pictures for Report.md in case the reader decides to read Report.md