The thesis focuses on substitution ciphers used at puzzlehunt games. First, we collect samples of the language which is used in the texts, that we are interested in. Furthermore, we propose a language model specially designed for working with sparse data. After that, we will explore the ways of searching for probable solutions and we will present a straightforward algorithm. Then we will improve it and make it more efficient. A significant part of the project is a console application, which serves as a deciphering tool. It is able to solve more than 15 % out of the ciphers, on which it has been tested. The result can be improved if the user inputs his current geography location. In this case, the program will search just for nearby places. That will allow the deciphering tool to explore more options and achieve a better precision.