Mateus Barros Rodrigues

✆ +55 11 97037-3867
✉ matbarrosrodrigues@gmail.com
⌨ github.com/mlordx

▬▬ Education

Feb 2017 -
Jul 2019

Master's Degree in Computer Science,
Project Title: "Single Source Shortest Paths in Simple Polygons", IME-USP,
Advisor: Carlos Eduardo Ferreira.
- **Teaching Assistant Work:** Introduction to Computer Science (2018/1) and Algorithms and Data Structures II (2017/2).

Mar 2012 -
Dec 2016

Bachelor's Degree in Computer Science, IME-USP,
Advisor: Carlos Eduardo Ferreira.
- **Teaching Assistant Work:** Introduction to Computer Science (2015/1) and Principles of Algorithm Design (2015/2).

▬▬ Projects

Mar 2016 -
Dec 2016

Window-Segment Intersection Queries, *Undergraduate Thesis*, IME-USP.
- Implemented and wrote a monograph about a computational geometry algorithm to quickly find all line segments intersecting with a given rectangular window.
- Required the study of data structures such as "Segment Tree" and "Layered Range Tree" and many point location algorithms.
- The source code is entirely available at: linux.ime.usp.br/~mlord/mac0499.

Mar 2015 -
Jul 2015

Teaching Assistant Management System,
Contributed to the development of the TA Managing Website, IME-USP.
- Helped develop the management system for TAs while undertaking "Extreme Programming Lab" course.
- Implementation was mostly done using *Ruby on Rails* and followed agile development practices.
- Developed features such as integration with USP's official undergraduate management system and the automatization of related documents. Code is available at: github.com/monitoria-imeusp/

Aug 2014 -
Dec 2014

4-Approximation Algorithm for Convex Decomposition of a Simple Polygon,
Computational Geometry Algorithm Implementation., IME-USP.
- Implementation of Hertel and Mehlhorn's algorithm while undertaking "Computational Geometry" course.
- Required the study of structures such as "Red-Black Binary Tree" and the "Doubly-connected Edge List" and other algorithms such as the triangulation of monotone polygons.
- The source code is entirely available at github.com/mlordx/mac0331.

▬▬ Extra-curricular Activities

2014 - 2016

Organization of the Computer Science Week (Semana da Computação), IME-USP.
- Participated as one of the organizers in IME-USP's Computer Science Week (Semana da Computação)
- Surveyed student's topics of interest, helped to arrange accomodations and transportation for speakers, among other event-managing tasks.
- Webpage of the event: bcc.ime.usp.br/semana.

Others

Languages.
. Portuguese: Native
. English: Fluent (Certification TOEFL iBT - Grade 112/120)

Preferred Programming Languages.
. Python
. C++
. C