

EDUCATION

Institute of Mathematics and Statistics (University of São Paulo)

São Paulo, Brazil

MASTER OF SCIENCE IN COMPUTER SCIENCE

January 2018 - February 2021

Dissertation of title "Identification of cell signaling pathways based on biochemical reaction kinetics repositories". Research project awarded with a São Paulo Research Foundation (FAPESP) scholarship.

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

February 2013 - December 2017

High Academic Merit Award Ranked #3 out of 50 students.

GPA: 9/10.

Texas A&M University

College Station, Texas

STUDY ABROAD PROGRAM IN COMPUTER SCIENCE

September 2015 - May 2016

Non-degree seeking exchange student participant of the Government of Brazil program Science Without Borders.

GPA: 3.75/4

EXPERIENCES

Geekie

São Paulo, Brazil

SOFTWARE ENGINEER

January 2020 - Present

Worked as a full stack engineer in squads of 4 to 6 people. I worked on the development of new features for the Geekie One app, including tasks of the back-end, in Python, and tasks of the front-end, where we used code-sharing with React and React-Native. Some of the technologies and services I had contact with were: AWS EC2 and Lambda; Heroku; New Relic; and Sentry. Some of the features I worked on are: student homework; homework grading; and school reports.

Butantan Institute

São Paulo, Brazil

GRADUATE RESEARCHER (WITH FAPESP SCHOLARSHIP)

January 2018 - February 2021

Masters project in a team of 2 (student and advisor). This project consisted in finding models based on system of ordinary differential equations for cell signaling networks. To rank models, we implemented a Bayesian method to estimate the marginal likelihood of a model. As a result, we created a Python software, called SigNetMS, that creates estimatives of the marginal likelihood of a model (github.com/gustavoem/SigNetMS).

UNDERGRADUATE RESEARCHER (WITH FAPESP SCHOLARSHIP)

May 2017 - December 2017

Scientific initiation in a team of 2 (student and advisor). In this project we created new parallel algorithms to solve the U-Curve problem based on forest search and divide and conquer, implemented in C++. The results were presented as a conclusion project (<https://gustavoem.github.io/ucurve-pfs/index.html>) for the bachelor title in computer science.

UNDERGRADUATE RESEARCHER (WITH FAPESP SCHOLARSHIP)

January 2015 - July 2015

Scientific initiation in a team of 2 (student and advisor). In this opportunity we studied the usage of new data structures for the U-Curve problem. As a result we created a new algorithm, UCSR, implemented in C++ and described on a published paper, of title: "Optimal Boolean lattice-based algorithms for the U-curve optimization problem".

SKILLS

Programming Javascript, React, Python, C++, C, Java, Octave (Matlab), Perl, Ruby
Idioms Portuguese (native), English (advanced; (2015) TOEFL IBT score: 93)

OTHER

University of São Paulo Open Source Hardware Student Group

MEMBER AND CO-FOUNDER

November 2013 - August 2015

The group was founded by computer science students in an attempt to foment the studies of open source hardware such as Arduino between students and local community.