

# CAIO TONETTI

Researcher &  
Software Developer

📍 Brazil

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## WHO AM I?

I am a Brazilian student and researcher currently finishing my master's degree. My main research interests are Optimization, Graph Theory and Algorithms, but I like to delve in everything related to applied computer science and electronics as a hobby. I am also a lover of everything open-source.

## LANGUAGES

**Portuguese (Brazil)** - native

**English** - proficient

## WORK EXPERIENCE

Oct/'17 – Dec/'17 **Back-end developer internship** SG Sistemas  
Worked in the backend of a company specialized in Enterprise Resource Planning software.  
C++ / Qt / Agile

## EDUCATION

Mar/'18 – Jul/'20 **Master's Degree (Current)** Universidade Federal de Minas Gerais  
Researching the problem of Token Swapping on specific graph classes and proposing new integer linear models for this same problem. Participated in the Academic Excellence Program scholarship (PROEX - CAPES) from March 2019 to March 2020.  
Advisor: Vinícius Fernandes dos Santos / Co-advisor: Sebastián Urrutia

Feb/'07 – Jan/'13 **Bachelor's Degree on Computer Science** Universidade Estadual de Maringá  
Researched the effects of static and dynamic code analyzers on the quality of optimizations in a scientific initiation program (PIC).  
Advisor: Anderson Faustino da Silva

## RELEVANT PROJECTS

Mar/'18 – Jul/'20 **Google Summer of Code 2020 Mentor (Current)** KDE Community  
Mentoring one student for the ROCS Graph Theory IDE. His project is focused on improving the graph layout capabilities of the software by implementing force-directed graph drawing algorithms.

Feb/'07 – Jan/'13 **Google Summer of Code 2019 Student** KDE Community  
Collaborated to the ROCS Graph Theory IDE, under the mentoring of Tomaz Canabrava and Adriaan de Groot. My project focused in the overall improvement of the software.

Feb/'13 – Dec/'17 **Co-founder and Administrator** Hackerspace Maringá  
I am one of the co-founders of the hackerspace in the city of Maringá - Paraná. I was the vice-president for one year and president of the organization for almost three years.

Mar/'17 – Apr/'17 **HackBrazil Participant** Brazil Conference  
HackBrazil was a one month long hackathon that our team, with the project InVisum, a prototype for a large scale database synchronization and processing system, got to the top 5 projects, presenting them in Boston at the Brazil Conference.

## RELEVANT PAPERS

May/'20 **Enhancing the Jikes RVM Adaptive Optimization System**  
IEEE Latina

Mar/'19 **Pinhão: An Auto-tuning System for Compiler Optimization Guided by Hot Functions**  
Journal of Universal Computer Science

Oct/'16 **A Design Space Exploration of Compiler Optimizations Guided by Hot Functions**  
International Conference of the Chilean Computer Science Society