







WHO AM I?

Caio Henrique Segawa Tonetti. I am a brazilian data engineer. My main work interests are in Optimization, Open Software, Compilers, Graph Theory and Big Data Infrastructure, but I like to delve in everything related to applied computer science, automation, AI, cloud and self-hosting as a hobby.

LANGUAGES

Portuguese (Brazil) - native English - proficient Italian - basic

WORK EXPERIENCE

Dec/'21 - Current Mid Data Engineer

Inter

Working as a Data Engineer at Inter. Responsible for implementing, maintaining and organizing data pipelines and libraries.

Python / Spark / Airflow / Nifi / AWS

Oct/'20 - Dec/'21 Mid Data Engineer

Eleflow Big Data Analytics at Work

Worked as a outsourced Data Engineer in Lojas Americanas SA. Responsible for multiple cloud infrastructures dedicated to data analysis and business inteligence.

Python / Databricks / Agile / Azure Cloud

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/'22 Master's Degree

Universidade Federal de Minas Gerais

Researching the problem of Token Swapping on 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

Mar/'12 - Jan/'18

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/'20 – Jul/'20 Google Summer of Code 2020 Mentor

KDE Community

Mentored 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.

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Mar/'19 – Jul/'19 Google Summer of Code 2019 Student

KDE Community

Worked on the ROCS graph theory IDE using the C++ programming language. More information at my status report.

Jan/'18 – Jul/'18 **Teacher Assistant**

Universidade Federal de Minas Gerais

Teacher assistant in the class of Project and Analysis of Algorithms for graduate students.

Feb/'13 - Dec/'17 **Co-founder and Admnistrator**

Hackerspace Maringá

I am one of the co-founders of the hackerspace in the city of Maringa - 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 syncronization and processing system, got to the top 5 projects,

presenting at the Brazil Conference at Harvard & MIT.

Jan/'14 – Jul/'16 **Teacher Assistant Universidade Estadual de Maringa**

Teacher assistant in the classes of Architecture and Organization of Computers (2014) and For-

mal Languages and Automatons (2015 to 2016).

RELEVANT PAPERS

Jun/2020 Integer Linear Programming Models for Sequential and Parallel Token Swaps in Graphs

LII Simpósio Brasileiro de Pesquisa Operacional (SBPO)

May/2020 Enhancing the Jikes RVM Adaptive Optimization System

IEEE Latina

Mar/2019 Pinhão: An Auto-tunning System for Compiler Optimization Guided by Hot Functions

Journal of Universal Computer Science

Sep/2018 Enfield: An OpenQASM Compiler

IX Congresso Brasileiro de Software (Second Best Tool Award)

Oct/2016 A Design Space Exploration of Compiler Optimizations Guided by Hot Functions

International Conference of the Chilean Computer Science Society

CERTIFICATIONS

Dec/2022	Astronomer Certification DAG Authoring for Apache Airflow
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astronomer.io

Sep/2022 Astronomer Certification for Apache Airflow Fundamentals

astronomer.io

Aug/2021 Microsoft Certified: Azure Data Fundamentals

Microsoft

Sep/2020 Mathematics for Machine Learning: Multivariate Calculus

Coursera

Aug/2020 Mathematics for Machine Learning: Linear Algebra

Coursera