Gustavo M. Carlos

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EDUCATION

Bachelor's Degree, Computer Science February 2019 - December 2023
University of Sao Paulo, Brazil - GPA 97%

PROFESSIONAL EXPERIENCE

Software engineering intern *Google* August 2022 - November 2022

- Implemented a view to develop and run tests for scripts that generate UIs for internal use
- Developed with a Java abstraction of Material Design components that are then processed into JavaScript
- Persisted the user-created tests in a Google globally distributed database
- Worked with Protocol Buffers, RPC, Bazel, and Guice

ACADEMIC EXPERIENCE

Capstone project *University of Sao Paulo* March 2022 - December 2022

- Developed a web application to organize the study for programming competitions (source code)
- Wrote a thesis outlining the development process of the app, from conceptual modeling to final product (link)
- Integrated with the Codeforces API to display data from the platform within the app
- Utilized a variety of technologies to create the web application, including MongoDB for the database, Spring and Kotlin for the back-end, and React, TypeScript, and Material Design for the front-end
- Used Docker Compose to integrate all the components and make the application work seamlessly

Member of MaratonUSP *University of Sao Paulo* February 2019 - Present

- Participated in MaratonUSP, a group dedicated to preparing for programming competitions
- Attended classes taught by peers, and also led a class on graph theory and the depth-first algorithm
- Invested over a thousand hours in studying algorithms and data structures, including practicing individually and in teams of three people

Undergraduate researcher *University of Sao Paulo* May 2020 - April 2021

- Helped develop a health dashboard (source code)
- Worked with more than a million records from the Brazilian National Health Service dataset
- Improved the performance by reducing the amount of data sent to the front-end
- Worked with Ruby On Rails, PostgreSQL, Node.js, jQuery, Jasmine, Cucumber, and Git in this project
- Co-authored an article published in the Visual Analytics in Healthcare 2020 workshop

PROJECTS

Objetivos (Goals) August 2019 - Present

- A C++ command-line program designed to help set and monitor goals and to-dos (source code)
- Employed it to organize and keep track of tasks and ideas

Finances app October/November 2021

- An app for financial management developed in the Mobile Computing class
- Developed two versions, one with Expo (source) and the other one with Android Studio (source)
- Built a user login system and retrieved and stored data from the OpenWeatherMap API in both versions
- Added a map with the Maps SDK and supported Firebase notifications in the Android Studio version

SpaceWars November - December 2019

- A space shooter game developed in C with two other friends as a class project (source)
- Simulated objects motion, gravity, and collision detection; created the graphics using a teacher library in X11

SKILLS

LANGUAGES

Portuguese	Native	*English*	Fluent

AWARDS

1st place	ACM-ICPC Subregional Sao Paulo 2021 (3rd in Brazil)
1st place	Gold medal at the Brazilian Mathematics Olympiad (OBMEP 2018)