

MATEUS FAVARIN COSTA

🐙 github.com/mateusfavarin ✉ mateusfavarinc@gmail.com

📍 Florianópolis, SC, Brasil ☎ +55 (48) 98810-3209

EDUCATION

Federal University of Santa Catarina

2018 - 2024

Bachelor of Computer Science

Federal Institute of Santa Catarina

2014 - 2017

Electric Technician

SKILLS

Languages:	English, Portuguese
Programming Languages:	C, C++, Python, Java, MIPS Assembly, Lua, JavaScript, Octave
Frameworks and Tools:	Qt, ImGui, Ghidra, Pandas, Tensorflow, Gym, OpenCV, SciPy, Dash
Development Environments:	Windows, Linux, Visual Studio, Visual Studio Code

WORK EXPERIENCE

Wellbe

Aug 2023 - Nov 2023

Data Scientist - Contract

- Improved the ETL pipeline by debugging and automating multiple tasks using Python, Pandas and SQL.
- Updated the codebase to the latest Python version, updated each framework to the latest version and fixed several bugs.
- Brought up the idea of adding code documentation to help the team speed up the company's tasks, documented several already existing and new code functionalities.

Eletrosul

Mar 2023 - Aug 2023

Intern

- Monitored data from telecommunication devices across the country, automated several data management processes, and developed visual representations of the network using Zabbix.
- Created multiple scripts to automate the maintenance of the database using Python and Zabbix.
- Helped cleaning the database, shrinking its total size by 50%.
- Added multiple devices to the network using the SNMP protocol.
- Maintained and expanded an internal web application using Python and Django.
- Worked with a small but diverse team of computer scientists, electrical engineers, telecommunication engineers and electronic engineers.

HealthTech 3778

Mar 2022 - Oct 2022

Intern

- Fully refactored the frontend of a healthcare web application, using Python and Dash.
- Debugged and profiled several functions, implemented cache optimizations in the website backend, and improved page loading times using Python and Google Cloud.
- Worked with an exciting team composed of data scientists, medical doctors, software engineers and machine learning engineers.

PROJECTS AND OPEN SOURCE CONTRIBUTIONS

PSX-Modding-Toolchain

- Developed a set of tools to modify and reverse engineer PSX games. Generates custom linker scripts on the fly, hot reloads code in memory, generates valid PSX disc images and xdelta patches.
- <https://github.com/mateusfavarin/psx-modding-toolchain>

PCSX-Redux

- The PCSX-Redux project is a collection of tools, research, hardware design, and libraries aiming at development and reverse engineering on the PlayStation 1.

- Helped expanding their web API, implemented bug fixes in the memory search UI, and updated their documentation.
- <https://github.com/grumpycoders/pcsx-redux>

Other Projects

- Developed multiple other projects, embracing topics from a wide range of fields, such as reinforcement learning agents, image manipulation, artificial intelligence, machine learning, bare metal development and reverse engineering.
- All of my projects are open source and available on my github page.
- <https://github.com/mateusfavarin>

AWARDS

- Gold Medal, Brazilian Mathematical Olympiad for Public Schools (2017)
- Gold Medal, Brazilian Regional Mathematical Olympiad (State of Santa Catarina) (2017)
- Honorable Mention, Brazilian Mathematical Olympiad (2017)

HOBBIES

- Amateur poker and chess player.
- Passionate traveller.
- Playstation 1 hacker enthusiast.