

# Mário Feroldi Filho

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CONTACT INFORMATION	Phone: +55 18 99796-9367 Email: mferoldif@gmail.com	<a href="https://github.com/feroldi">github.com/feroldi</a> <a href="https://www.linkedin.com/in/mferoldif">linkedin.com/in/mferoldif</a>
EDUCATION	<b>Salesiano Auxilium Catholic University</b> , Araçatuba, Brazil <i>B.S., Computer Engineering</i> <i>GPA: 3.45/4.0</i>	<b>Feb 2015 – Dec 2019</b>
PROFESSIONAL EXPERIENCE	<b>Grupo Saludem</b> , <i>Software Engineer Intern</i> <ul style="list-style-type: none"><li>Optimized the development cycle by moving the compilation, testing and deploying process to the Cloud.</li><li>Developed a clinical appointment scheduling mobile application for the AME clinics with the Flutter SDK.</li><li>Trained developers to use the Github workflow in the development process.</li></ul>	<b>Jan 2019 – present</b>
RESEARCH EXPERIENCE	<b>Salesiano Auxilium</b> , <i>Undergraduate Research</i> <ul style="list-style-type: none"><li>Researched compiler optimizations in code generation for multiple processor architectures.</li><li>Elaborated on instruction selection and the pattern matching and selection problem.</li><li>Researched how LLVM, GCC and superoptimizers select instructions and generate quality code.</li></ul> <b>Salesiano Auxilium</b> , <i>Undergraduate Thesis</i> <ul style="list-style-type: none"><li>Researching the Regionalized Value State Dependency Graph (RVSDG) as an intermediate representation (IR) for multiple compiling stages.</li><li>Implementing the compiler's back end as a pipeline of transformations on the RVSDG, turning it from higher to lower level at each pass.</li><li>Avoiding duplication of effort when implementing common optimizations for different IRs, such as constant propagation.</li></ul>	<b>Aug 2018 - Jun 2019</b>  <b>Feb 2019 - Dec 2019</b>
PERSONAL PROJECTS	<b>CCI: C11 Compiler Infrastructure</b> <ul style="list-style-type: none"><li>Developing a compiler infrastructure to manipulate and compile C code.</li><li>Meant as a personal research project to acquire hands-on experience on compiler engineering.</li><li>Used C++17 for development, GoogleTest for unit tests, and CMake for the build system.</li></ul> <b>Ruke: A microkernel experiment</b> <ul style="list-style-type: none"><li>Created a microkernel for the x86 architecture.</li><li>An experiment with the Mozilla's Rust programming language.</li><li>Used Rust for most of the development, and x86 Assembly for the low-level bits.</li></ul> <b>Cognita: A flashcard system mobile application</b> <ul style="list-style-type: none"><li>A system to optimize the learning process of any subject by using the principle of spaced repetition.</li><li>Implemented the Leitner system for the training sessions.</li><li>Used the Flutter framework, and the SQLite embedded database.</li></ul>	<a href="https://github.com/feroldi/cci">github.com/feroldi/cci</a>  <a href="https://github.com/feroldi/ruke">github.com/feroldi/ruke</a>  <a href="https://github.com/feroldi/cognita">github.com/feroldi/cognita</a>
LANGUAGES	Advanced English Native Portuguese	
TECHNICAL SKILLS	Bash, C, C++, C#, Dart, Flutter, GNU/Linux, Git, Java, POSIX, PostgreSQL, Python, Rust, SQLite, x86 Assembly	
OTHERS	Top 10% on the C++ tag on Stack Overflow Placed 348th out of 1156 at the XXIII Maratona SBC First Phase Undergraduate Teaching Assistant for Compilers Gave a presentation to my class on C++14 and its features Undergraduate Teaching Assistant for Programming Logic and Algorithms	<b>since Jan 2019</b> <b>Sep 2018</b> <b>Aug 2018</b> <b>Aug 2016</b> <b>Jan 2015</b>