

# ANDRÉ LARANJEIRA

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EDUCATION	<b>Master's in Computer Science</b> Aug 2022 - May 2024 <i>University of Georgia</i> - Athens, GA, United States <ul style="list-style-type: none"><li>GPA of 4.00/4.00 over 4 university semesters.</li><li>Research area: Mathematical optimization algorithms.</li></ul>
	<b>Bachelor's in Computer Engineering</b> Mar 2016 - Jun 2021 <i>University of Brasília</i> - Brasília, DF, Brazil <ul style="list-style-type: none"><li>GPA of 4.87/5.00 over 10 university semesters.</li><li>Featured student amongst graduates in Computer Engineering of that semester.</li></ul>
EXPERIENCE	<b>ML/AI Developer</b>   ColomboAI Oct 2024 - Currently <ul style="list-style-type: none"><li>Developed backend APIs using Python, FastAPI, MongoDB and Poetry.</li><li>Researched concepts related to utilizing machine learning for recommendations.</li><li>Wrote reports with timeline estimates and trade-off analysis for development paths.</li></ul>
	<b>Graduate Teaching Assistant</b>   University of Georgia Aug 2022 - May 2024 <ul style="list-style-type: none"><li>Assisted professors with grading, course logistics and collecting ABET statistics.</li><li>Conducted programming lab sections with students.</li><li>Utilized and further developed grading software written in Java.</li></ul>
	<b>Web Development Intern</b>   Tribunal de Contas da União Oct 2019 - Mar 2021 <ul style="list-style-type: none"><li>Developed internal web applications using Agile methodologies.</li><li>Worked with Oracle's Application Express (APEX) framework and PL/SQL.</li><li>Modernized internal processes, thus helping employees and lowering expenses.</li></ul>
	<b>Director - Finances &amp; Administration</b>   Struct Junior-Enterprise Feb 2020 - Dec 2020 <ul style="list-style-type: none"><li>Managed and supplied financial documents, including monthly balance sheets.</li><li>Wrote documentation for administrative procedures and programming practices.</li><li>Worked towards the inception of a R&amp;D department.</li></ul>
	<b>Full-Stack Developer</b>   Struct Junior-Enterprise Jan 2019 - Jan 2020 <ul style="list-style-type: none"><li>Developed websites and web applications using Agile methodologies.</li><li>Worked with Ruby on Rails, Bootstrap, HTML.ERB, CSS and MySQL.</li><li>Participated in meetings with clients to gather requirements and project feedback.</li></ul>
SKILLS	<p><b>Programming Languages:</b> Knowledgeable in Python, C and Javascript. Experience with Scala, Java, C++, HTML, CSS, SCSS, Rust, Ruby and Typescript. Acquainted with Kotlin, Assembly (x86, MSP430 and MIPS), R and VHDL.</p> <p><b>Frameworks and Libraries:</b> Knowledgeable in Ruby on Rails and Oracle's Application Express (APEX). Experience with React.JS, React native, Express.JS, Expo, Qt and Django. Acquainted with FastAPI and SDL2.</p> <p><b>Databases:</b> Knowledgeable in MySQL, PL/SQL and data modeling. Experience with Fire-base and PostgreSQL. Acquainted with MongoDB.</p> <p><b>Artificial Intelligence (AI):</b> Experience with Machine Learning, Artificial Neural Networks and Reinforcement Learning.</p> <p><b>Tools and Concepts:</b> Knowledgeable in Git and GitHub, Linux and Bash. Experience with Agile methodologies, Node.JS, Doxygen, PThreads, Cucumber, RSpec, GDB and Semantic Versioning. Acquainted with Heroku and Poetry.</p> <p><b>Languages:</b> Portuguese, English (TOEFL IBT: 117/120) and basic knowledge of Spanish.</p>

# PROJECT PORTFOLIO

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## ScalaTion Framework

Feb 2023 - Mar 2024

*Scala, Java, C* | **Developer, Maintainer**

- Scala-based framework for Simulation, Optimization and Analytics created by Dr. John A. Miller.
- Part of the research work for my Master's Thesis at the University of Georgia.
- Developed new optimization features in Scala and using Java's Foreign Function & Memory API.
- Wrote a port to Scala for features of a mathematical optimization library written in C.
- Maintained a GitHub repository for the project; handled branching strategy and branch merges.

## Meau App

Feb 2021 - May 2021

*Typescript, Node.JS, Firebase, React Native, Expo* | **Scrum Master, Developer**

- Android application to allow users to adopt pets and to chat through instant messaging.
- University group project undertaken throughout a semester as part of an App Development class.
- App developed with Expo framework, Firebase Backend and a React Native + Typescript Frontend.
- Worked on new features and refactoring for the app throughout multiple development sprints.
- Reviewed Pull Requests of other group members; tested changes and provided feedback on code.
- Acted as Scrum Master; chose tasks for each development sprint and split them with group.

## Heart Failure Prediction

Aug 2020 - Jun 2021

*Python, Machine Learning, Javascript, Node.JS, Express.JS, React.JS* | **Developer**

- Website to allow users to manage patient data and leverage AI to predict future heart failure.
- Part of the research work for my Undergraduate Thesis at the Universidade de Brasília, Brazil.
- Built Machine Learning prediction model, Express.JS Backend API and React.JS Frontend website.
- Prediction model used real patient data for training and was chosen from 5346 models evaluated.
- Backend API served patient data through JWT authentication and called the prediction model.
- Frontend website allowed user registration/login, patient registration and viewing prediction results.

## Message Logger

May 2019 - Nov 2021

*C, PThreads, Doxygen, Semantic Versioning* | **Maintainer, Developer**

- C library developed by me for logging messages in programs with optional log file support.
- Worked with concepts such as ANSI escape codes, VA lists and PThreads when developing features.
- Managed all aspects of maintaining the project, documenting code and managing releases.

## ProxyGate

May 2019 - Jul 2019

*C++, Qt, Doxygen* | **Developer**

- Desktop application that acts as a HTTP proxy server between the web browser and the internet.
- University group project developed with C++, Qt, and Doxygen to learn about computer networks.
- Developed and documented code features throughout multiple development sprints.

## Rotten Potatoes

Sep 2018 - Nov 2018

*Ruby on Rails, Heroku, Cucumber, RSpec* | **Developer**

- Website that allows users to search, filter and order movies from a movie database.
- University project built with Ruby on Rails, Cucumber and RSpec for Software Engineering class.
- Follows book "Engineering Software as a Service – An Agile Approach Using Cloud Computing".
- Developed website features, user stories and tests. Temporarily deployed website using Heroku.