André Laranjeira

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Education

Master's in Computer Science, University of Georgia Georgia, USA (2022 - 2024)
- GPA of 4.00/4.00 over 4 university semesters.
- Research area: Mathematical optimization algorithms.

Bachelor's in Computer Engineering, University of Brasília Brazil (2016 - 2021)
- GPA of 4.87/5.00 over 10 university semesters.
- Featured student amongst graduates in Computer Engineering of that semester.

Experience

Graduate Teaching Assistant | University of Georgia Aug 2022 - May 2024
- Assisted professors with grading, course logistics and collecting ABET statistics.
- Conducted programming lab sections with students.
- Utilized and further developed grading software written in Java.

Web Development Intern | Tribunal de Contas da União Oct 2019 - Mar 2021
- Developed internal web applications using Agile methodologies.
- Worked with Oracle's Application Express (APEX) framework and PL/SQL.
- Modernized internal processes, thus helping employees and lowering expenses.

Director - Finances & Administration | Struct Junior-Enterprise Feb 2020 - Dec 2020
- Managed and supplied financial documents, including monthly balance sheets.
- Wrote documentation for administrative procedures and programming practices.
- Worked towards the inception of a R&D department.

Full-Stack Developer | Struct Junior-Enterprise Jan 2019 - Jan 2020
- Developed websites and web applications using Agile methodologies.
- Worked with Ruby on Rails, Bootstrap, HTML.ERB, CSS and MySQL.
- Participated in meetings with clients to gather requirements and project feedback.

Skills

Programming Languages: 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.

Frameworks and Libraries: 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 SDL2.

Databases: Knowledgeable in MySQL, PL/SQL and data modeling. Experience with Firebase and PostgreSQL.

Artifical Intelligence (AI): Experience with Machine Learning, Artificial Neural Networks and Reinforcement Learning.

Tools and Concepts: 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.

Languages: Portuguese, English (TOEFL IBT: 117/120) and basic knowledge of Spanish.

Project Portfolio

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.