ITAMAR ROCHA FILHO

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Languages   Portuguese, English, French, Spanish.

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EXPERIENCE

Software Engineer Intern - Google [Mountain View - CA]   06/2023 - 09/2023

I interned at the YouTube Strategic Video Compression team, working on an open-ended research project. The project involved taking different approaches to improve the ultra-popular-video compression algorithm. I cut the cost of the component by 50% while also decreasing the model's diff by 7% and simplifying the code base to one model instead of six.

Software Engineer Intern - Meta [London - UK]   01/2023 - 04/2023

I worked on the App Ads Platform team. I was responsible for creating a new feature for Instagram Ads. The project consisted of creating an end-to-end demo (Back end + Front end: web and mobile), testing, Analyzing metrics, Resolving bugs, and collaborating with other teams. I completed the project in advance and started working on side projects to help the team.

Software Engineer Intern - Praso [Recife - BR]   05/2022 - 11/2022

Praso is a startup based in Brazil that aims to help Small and Medium Businesses buy cheaper products with quality service and delivery. I developed and maintained the company's mobile app from scratch. The app is available in both Play and Apple stores, and when I left the company, it was responsible for 37% of the monthly GMV, which was growing fast near 1 million dollars.

Software Engineer Intern - Meta [London - UK]   01/2022 - 04/2022

I worked on the AI for AR team. The team is focused on cutting-edge research in computer vision and audio. My internship involved adapting and fine tuning a state-of-the-art model to use Meta's production environment, cleaning, refactoring the code, and deploying it for further testing and production use. I also built a demo for internal use.

Software Engineering Intern - Google [Belo Horizonte - BR]   08/2021 - 11/2021

I worked on the Google Search - contextualization team. My work involved exploring and analyzing a new data source creating an end-to-end demo (Data Generation + Analysis + Back-end + Front-end). After completing my demo, I increased the original feature's coverage by 68.38% while maintaining a high data quality.

Research Initiation Fellow - UFPB [João Pessoa - BR]   09/2020 - 09/2021

I developed an approach to automatically describe characters — in a video or an image — combining Deep Learning (DL), Face detection, Facial Expression detection techniques, and audio synthesizers. Our proposal uses the detection tools, applies some DL models to the analyzed data, and generates an audio description. The research paper was published on WebMedia.

Developer and Project Documenter - Integrated Command and Control Center (CICC)   11/2020 - 07/2021

Management and documentation of the project. The project involved developing a real-time platform that integrates different Federal databases, using various classified documents and tracking information provided by the Paraíba's treasury office.

Combinatorial Optimization Developer - Atoptima and UFPB [Bordeaux - FR]   11/2020 - 04/2021

Atoptima is a French startup in decision support systems aiming to offer cutting-edge mathematical optimization to all businesses requiring resource assignment optimization. My job consisted of documenting/testing/building private software and optimizing Coluna.jl a mathematical programming solver.

Data Scientist Intern - Armazém Paraíba   07/2020 - 10/2020

The Armazém Paraíba is one of the most traditional companies with the most significant influence in northeastern Brazil, with an approximate net worth of US$ 2 billion (2018). During my internship, I used time series forecasting in the sales data of all 65 stores of Armazém Paraíba in Brazil through statistical models and machine learning, such as Prophet, Arima, and various regressions.

Software Engineering Intern - LAVID   09/2019 - 12/2019

Developed a prototype of a surveillance system at the Laboratory of Digital Video as a software engineering project for the Federal University of Paraíba.

EDUCATION

B.S in Computer Engineering - Universidade Federal da Paraíba - 9.59/10 (1st)   07/2018 - 12/2023 (expected)

TOOLS AND INTERESTS

Tools   Julia, C, C++, Python, JavaScript, Flutter, PyTorch, TensorFlow, Git, Linux.
Interests   Startups, Venture Capital, Software Engineering, Machine Learning, Mobile Development.

EXTRACURRICULAR ACTIVITIES

Ex-President, Co-Founder and Advisor TAIL - UFPB 08/2020 - Present

TAIL (Technology and Artificial Intelligence League) is a non-profit organization oriented by the ARIA LAB professors. The Academic League aims to teach new students, produce content, contribute to the AI and Data Analysis field, and help the members achieve their goals (internships, graduation programs, full-time jobs). It currently has 65 active members distributed across Brazil and has introduced hundreds of people from multidisciplinary areas to programming and artificial intelligence.

Volunteer Boolean Algebra and Logic Circuits tutor - UFPB 02/2019 - 10/2019

The work as a volunteer was awarded a Teaching Initiation Honor. The class had one of the lowest pass rates (60 %) in the informatics center, which increased to 90% by the end of our work.

PUBLISHED PAPERS

An Approach for Automatic Description of Characters for Blind People **WebMedia 2021**

Iris-CV: Classifying Iris Flowers Is Not as Easy as You Thought **BRACIS 2021**

RELEVANT CERTIFICATES

Deep Learning Specialization - deeplearning.ai (Cousera) 09/2020

DAT257x: Reinforcement Learning Explained - Microsoft(edx) 05/2020

HONORS AND AWARDS

Tech Fellow - Fundacao Estudar (NGO) 09/2021

This process selects students who will lead Brazil's technological revolutions. It is a merit-based scholarship founded by prominent Brazilian businessmen Jorge Paulo Lemann, Marcel Telles, and Beto Sicupira. It includes a grant to pursue studies, mentorship, and career support. My contributions to the community included:

- Speaking in 10+ public schools about the NGO's programs and my career as a student and software engineer.

- Assisting other tech fellows with resume review, interview practice, and mentoring.

- Conducting tech talks in the NGO YouTube channel with CTOs, recruiters, and directors of Brazilian companies.

- Engaging with the community and organizing social events. I organized 4 happy hours in San Francisco during my Google internship.

Teaching Initiation Award - UFPB 11/2019

Awarded for the work done in tutoring the Boolean Algebra and Logic Circuits class.

First place at entrance exam for Computer Engineering at UFPB 01/2018

Silver Medal at Canguru Mathematics Olympiad 05/2017