## Natal, Rio Grande do Norte, Brazil

2024

## **Cover letter**

Olá

My studies in the field of development commenced during my technical high school education in computer science at IFRN. Since 2019, I have been dedicated to learning languages such as Java, C++, and Javascript, consistently seeking to enhance my skills. Throughout this period, I developed computational intelligence capable of attributing authorship to unknown literary texts, utilizing Java 14 to construct both the Frontend and Backend, encompassing all the logic of computational intelligence.

Over the course of the project's first year, which began in 2020, I obtained a patent from the National Institute of Industrial Property (INPI) and authored scientific papers for prominent conferences such as WebMedia and BRACIS. As the project progressed, we transitioned to an approach employing Spring for the Backend and React for the Frontend, resulting in another patent registered in early 2022, in addition to drafting a new article for SIBGRAPI.

In parallel with my studies, I participated in a project in collaboration with the Brazilian company Pechinchou, in partnership with IFRN. In this project, I was part of the Frontend team, utilizing technologies such as React and React Native. This six-month experience provided me with valuable initial exposure to the job market, working within a complete scrum team. Furthermore, I gained proficiency in essential tools such as Git/Github, and familiarized myself with operating systems such as Linux and MacOS.

I began my journey at UFRN in 2022, where I enrolled in the Bachelor's program in Information Technology. Early in the course, I had the opportunity to join a development project at the Metropolitan Digital Institute (IMD) as a member of the Laboratory of Mobile and Ubiquitous Computing (LabCoMU) under the coordination of Prof. Dr. Itamir de Morais. This project, a collaboration between IMD and SIEMENS AG Brasil, aimed to develop a Web System and a Mobile Application to optimize company processes. For eight months, I served as a member of the team responsible for developing the Web system, using Java within the Spring ecosystem and Thymeleaf.

After concluding my participation in that project, I joined iNMS 5G (Intelligent Network Management System for 5G) as a member of the Research Group on Internet Services and Applications of the Future (REGINA Lab), an experience that proved to be unique and extremely enriching for my resume. iNMS 5G is a project resulting from the partnership between Lenovo Brasil and IMD, aiming at the development and research of solutions for the 5G network. During this period, I maintained my focus on enhancing my skills in Java and explored new areas such as containerization using Docker, Podman, and Kubernetes, in addition to deepening my knowledge in virtualization through OpenStack and Open Source MANO. I also gained familiarity with data analysis and monitoring services such as Grafana and Prometheus, as well as working with messaging systems like RabbitMQ and Kafka.

Today, I engage in scientific research as a member of the Collaborative & Automated Software Engineering research group (CASE), a renowned research group at UFRN, where I develop articles and science applied to the field of MLOps (Machine Learning Operations).

I believe that my experiences with technology, combined with my deep passion for research and development, and the academic knowledge I have been acquiring, can contribute to a performance that meets your expectations.

I am available to provide more information or references if needed. My portfolio can be found at: https://portfolio.ppaiva.dev.br.

Thank you for considering my application!

Best regards, Pablo Paiva