



## Bianca de Espindola Manoel

**Date of birth:** 20/10/1995 | **Nationality:** Italian, Brazilian | **Gender:** Female |

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### WORK EXPERIENCE

08/01/2021 – CURRENT Florianópolis, Brazil

**FRONT END DEVELOPER** KHOMP INDUSTRIA E COMERCIO LTDA.

- Developed a large project that consisted of creating user stories and transforming them into new features within the web application using Typescript, React.js, and Material UI.
- Proficient in utilizing ORM frameworks, with a focus on PostgreSQL, to efficiently manage and manipulate relational databases.
- Proficient in integrating front-end frameworks with various types of back-ends, including PHP, Node.js, C++, and other languages.
- Experience in developing integrations between REST APIs and web applications, using Redux, Next.js, and Node.js to manage data and enhance user interactions.
- Enhanced accessibility by 20% through rigorous WCAG compliance in web design and development.
- Collaborated in a Scrum team, consistently adhering to best coding practices to ensure high-quality software development.

10/08/2019 – 10/12/2020 Araranguá, Brazil

**FRONT END DEVELOPER** EJE (JUNIOR ENTERPRISE OF COMPUTER ENGINEERING)

- Responsible for bringing project requirements to customers.
- Analyzed user research trends and suggested changes to existing design processes for better results.
- Developed an interactive layout, using HTML, CSS and JavaScript to generate an improved user experience and ensure high-quality design.
- Contributed to storyboards, user flows, and sitemaps to guide design progress on multiple projects.

07/05/2017 – 10/08/2019 Araranguá, Brazil

**SOFTWARE DEVELOPMENT RESEARCHER** LARM (MOBILE AUTOMATION AND ROBOTICS LABORATORY)

Designed and implemented embedded real-time communication system software using C++, Python, ESP32, MQTT Protocol and Cryptography to receive and visualize data on a web page.

### EDUCATION AND TRAINING

08/08/2015 – 13/05/2022 Araranguá, Brazil

**BACHELOR'S DEGREE IN COMPUTER ENGINEER** Universidade Federal de Santa Catarina (UFSC)

**Address** Araranguá , 88900-000, Araranguá, Brazil | **Website** <https://en.ufsc.br/> |

**Field of study** Information and Communication Technologies (ICTs) not further defined |

**Thesis** Experimental evaluation of a security layer implemented in a cardiac wearable device for the Internet of Medical Things

### DIGITAL SKILLS

JavaScript | CSS | HTML5 | TypeScript | SQL | HTML | Git | Web Development | Bootstrap | RESTful api | Agile (Scrum) | React.js | Node.js | PostgreSQL

## ● LANGUAGE SKILLS

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Mother tongue(s): **PORTUGUESE**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C1	C1	C1	C1
<b>ITALIAN</b>	A1	A1	A1	A1	A1
<b>GERMAN</b>	A1	A1	A1	A1	A1

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## ● ADDITIONAL INFORMATION

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### PUBLICATIONS

#### [Experimental evaluation of a security layer implemented in a cardiac wearable device for the Internet of Medical Things](#)

– 2022

Write here the dThere is a growing demand for new devices for medical applications due to the advancement of the Internet of Things in healthcare. This article aims to experimentally evaluate a security layer for a cardiac wearable designed to perform electrocardiogram exams in wireless and remote networks. Low computational cost algorithms for IoMT devices were analyzed in the scientific literature to improve the robustness against man-in-the-middle and eavesdropping attacks. Three algorithms were selected and implemented (AES-256 CBC, SPECK and CLEFIA). A series of load tests were applied to analyze the performance of the security layer of the chosen algorithms, observing the latency parameters and throughput variation in the transmission of the signals. All algorithms performed satisfactorily, demonstrating that adding a security layer to the IoMT device is feasible. However, the AES-256 CBC showed the best results, being the most suitable algorithm for a cardiac wearable security layer.escription...

B. Manoel et al, 2022, "Experimental evaluation of a security layer..." in (SBSEG), p. 97-110.