

# JONATHAN TOBIAS DA SILVA

## Electrical Engineer

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As a mere technology, management and Engineering lover, I'm major in Electrical Engineering from Federal Institute of São Paulo, (IFSP, Brazil) and I'm currently doing a master's degree in Electrical Engineering at the University of São Paulo (USP, Brazil). Through experience with computing and industrial automation, I seek to understand reality and everything that, directly or indirectly, involves it, to use the most diverse tools and knowledge of Engineering in order to improve the world in which we live.

## EXPERIENCE

### Electronic Intelligence Assistant, R&D

#### Nova Smar S/A

📅 2021–Present    📍 Sertãozinho, SP

- As a member of the System302 team within the Electronic Development department, my role entails contributing to the development, maintenance, and quality testing of SMAR's distributed automation control system and other associated software and tools. This involves: programming firmware and software, planning and managing tests, managing studies and development on IACS cybersecurity, and Artificial Intelligence applied to the industry.

### Master's thesis

#### EESC/USP

📅 2022–Present    📍 São Carlos, SP

- Development of an intrusion detection method in OPC UA networks based on Machine Learning techniques. The system utilizes Artificial Neural Networks (ANNs) and Support Vector Machines (SVMs) to effectively detect Man-in-the-Middle (MITM), Denial-of-Service (DoS), and packet injection attacks on an industrial network that operates using the OPC UA protocol.

### Scientific Initiation Scholarship

#### Federal Institute of São Paulo (IFSP)

📅 2020    📍 Sertãozinho, SP

- Project: "Diagnostic system for failures in hydraulic pumps through electrical current analysis and machine learning tools", with presentation and articles published in the 11th CONICT and 14th INDUSCON (IEEE).

📅 2019    📍 Sertãozinho, SP

- Project: "Development of a web-based tool for dimensioning equipment for electric motor drives", with presentation and articles published at the 10th CONICT.

### Junior Enterprise Member - CONECTA Jr.

#### Federal Institute of São Paulo (IFSP)

📅 2019    📍 Sertãozinho, SP

- Active in the project area and responsible for the development of the company's strategic planning.

## EDUCATION

### Master's degree in Electrical Engineering

#### University of São Paulo (USP)

📅 2022 – Present    📍 São Carlos, SP

### Degree in Electrical Engineering

#### Federal Institute of São Paulo (IFSP)

📅 2017 – 2021    📍 Sertãozinho, SP

### Technical Education in Administration Integrated to High School

#### ETEC Antônio de Pádua Cardoso

📅 2014 – 2016    📍 Batatais, SP

## SKILLS

### Professionals

- High leadership ability;
- Consistently fulfilling obligations with the highest quality;
- Eagerness for knowledge;
- Excellent teamwork skills;
- Always willing to grow and evolve.

### Techniques

- Experience with agile methods and tools: OKR, SCRUM, Kanban, Mantis Bug Tracker, Trello, Jira, BitBucket, Confluence, DotProject;
- Research area focused on Industry 4.0: Operational Technology, Artificial Intelligence and Machine Learning, Cybersecurity, Cloud Computing;
- Software: Visual Studio, MATLAB, System302, TIAPortal;
- Computer technologies and programming languages: Git, Docker, NodeJS, Python, C, C++, Java, LaTeX, JavaScript, HTML, CSS, Databases (MongoDB/MySQL/PostgreSQL);

## LANGUAGES

Portuguese  
English  
Spanish

