JONATHAN TOBIAS DA SILVA

Research & Development Engineer

@ jonathantosilva@hotmail.com 📞 +55 (16) 99323-2745 📍 São Paulo, Brazil 🌐 jonathantsilva.com

in jonathantsilva ⬭ jonathantsilva 🆔 0000-0002-2511-259X

Experienced Research and Development engineer specializing in software engineering and embedded systems, focusing on operational and information technology domains. I'm dedicated to leveraging technology and engineering to address real-world challenges and drive positive change.

EXPERIENCE

R&D Electronic Intelligence Analyst

Nova Smar

📅 2024 – Ongoing 📍 Sertãozinho, SP, Brazil

- Orchestrate a product development initiative, managing a team of 10 engineers and developers.
- Linux operating system and kernel development using the Yocto Project for RTOS.

R&D Electronic Intelligence Assistant

Nova Smar

📅 2022 – 2023 📍 Sertãozinho, SP, Brazil

- Research Cybersecurity and Artificial Intelligence for industrial automation, ensuring system security and efficiency gains of 76% in production processes through Machine Learning tools.
- Develop desktop and embedded applications for System302 in Linux environments, including firmware patches that have enabled updates for the largest installed base of the system.
- Apply a comprehensive set of Software Engineering and Computer Network concepts to development processes, such as version control, clean code, and CI/CD.
- Manage System302 project milestones and quality assurance processes to ensure project success.
- Craft technical documentation in Portuguese and English.
- Develop and conduct internal training.

R&D Intern

Nova Smar

📅 2021 📍 Sertãozinho, SP, Brazil

- Experience in software development, research, testing, documentation, technical support, and software management within R&D.

EDUCATION

Master in Electrical Engineering

University of São Paulo (USP)

📅 2022 – Ongoing 📍 São Carlos, SP, Brazil

Thesis:
- Development of an intrusion detection method in OPC UA networks based on ML techniques.

Bachelor in Electrical Engineering

Federal Institute of São Paulo (IFSP)

📅 2017 – 2021 📍 Sertãozinho, SP, Brazil

Final Paper:
- Cloud-based intelligent system for hydraulic pump failure detection.

Scientific Initiation Scholarship:
- Diagnostic system for failures in hydraulic pumps through electrical current analysis and machine learning tools.
- Development of a web-based tool for dimensioning equipment for electric motor drives.

Certificate in Administration

ETEC Antônio de Pádua Cardoso

📅 2014 – 2016 📍 Batatais, SP, Brazil

- Foundational technical knowledge acquired during high school, providing the necessary expertise for business and people management.

TOPICS OF INTEREST

Embedded Systems Convergence IT/OT Linux
Cybersec Cloud Computing AI/ML Management
Software Engineering Communication Protocols
Programming Languages Data Science & Analytics

SKILLS

Technical

- **Experience with agile methods and tools:** OKR, SCRUM, Kanban, Mantis Bug Tracker, Trello, Jira, BitBucket, Confluence, DotProject;
- **Applications:** Visual Studio (+Code), MATLAB, cloud platform (GCP), virtualization (VBox, Vmware (+ESXi), Hyper-V, ProxMox), industrial automation configurators (System302, TIAPortal);
- **Computer technologies and programming languages:** Linux, Git, Docker, Python, Bash, Node.js, C, C++, Java, JavaScript, LaTeX, Qt (+QML), Database (MongoDB, MySQL, PostgreSQL).

Professional

- High leadership ability;
- High adaptability;
- Deadline-Oriented;
- Eagerness for knowledge;
- Excellent teamwork skills;
- Always ready for a collaborative environment.