FREDERICO LUCIO MACEDO
Software Engineer

ABOUT

I am a seasoned Software Developer proficient in Java, Python, and Web programming, with over five years in esteemed organizations such as Nokia, GAO TECK, and Petrobras. I've played a pivotal role in developing full-stack applications and implementing Network Automation in Python and Java, aligning with industry best practices and innovative technologies at Nokia and Petrobras.

While at Petrobras, as a Data Analytics, I ensured optimal quality of industry solutions with AI applications over systems controls, managing comprehensive testing processes and pinpointing and resolving areas for improvement efficiently in collaboration with cross-functional teams, enabling enhanced software reliability and performance.

I'm passionate about leveraging coding to create innovative and impactful solutions, particularly in software development and quality assurance, continuously aiming for excellence and adherence to the highest standards in every project. Eager to contribute my diverse skill set and experience to a dynamic and progressive team, I am committed to continuous learning and applying the latest industry advancements to achieve organizational goals and mutual growth.

CONTACT

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EDUCATION
- Computer Programming – Algonquin College –Canada – Sep 2021 – Aug 2023
- Computer Systems Developer - Cruzeiro do Sul University – Brazil - Feb 2018 – Jul 2020

PERSONAL SKILLS
- Flexibility and Adaptability
- Passionate about photography and technology
- Strong Work Ethic
- Positive Attitude
- Problem Solving Skills
- Acting as Team Player

TECHNICAL SKILLS
- Java, Architectural Design Patter (MVC, DAO, Strategy, Builder, Servlet, Delegation, Object Oriented Program), Maven, Hibernate, JPA, JSF, EJB, Python, Ruby, REST API, HTTP protocol.
- Structure Notations, JSON, XML, Mitral, YAML.
- Network test automation, router configurations OSPF, BGP, LDP, VPN services.
- Microsoft Power BI data analytic.
- Web Developing with Angular, React, JavaScript, Express, NodeJS, Typescript, CSS, HTML**.**
- Operational System (Microsoft, Linux, Unix).
- Database Oracle, MongoDB, Neo4J, MySQL, PostgreSQL, PostgreSQL, SQL.
- Data Analytics with Supervised, unsupervised, KNN, Decision Trees, kMeans, LOF, ISF and Regression by Python and R.
- Kubernetes, Docker, Vs code, Eclipse.

EXTRA
- Standard Check Configuration Network Switches Developed at Nokia.
- Project Manager and Financial Manager Systems Developed at Nokia.

- Implementation of database security - Award - 2014 Petrobras
- Government Quality and Management Program - Award - 2010 Petrobras.

WORK EXPERIENCE

- **Jan 2022 – August 2023 - Software Developer Internship – Nokia.**
  - Devised and executed a **Python script** to extract device alarms from many vendors' network devices and generate JSON output files daily. Also, a Web application to handle the user interface and generate KPI views on **Power BI by Angular, NodeJS, JavaScript, TypeScript, HTML, and CSS.**

  - Designed and implemented advanced automation scripts in **Java and Python versions,** streamlining the process of retrieving and configuring router settings via the Command Line Interface (CLI). This innovation led to a significant optimization in the workflow, significantly reducing the time to check security policies.

  - Developed an innovative Python script to dynamically extract and assess network log views from the FortiAnalyzer platform by **REST API.** Overcoming the inherent time stamp interval limitation. This enhancement enabled flexible retrieval of log views for any desired time range. As a direct result, the Cyber Security team boosted their network monitoring efficiency using **Python script output connected with Power BI KPI.**

  - Design an innovative System from Scratch tailored for the Project Manager team. The Finance Management System meticulously managed Nokia project budgets and expenditures using **JavaScript, HTML, CSS, PowerFX, .Net, Microsoft PowerApps, Power Automator, and SharePoint**.

  - Designed and developed The Draft Project Tool, which streamlined new project processes by overseeing every step and approval before execution by **JavaScript, HTML, CSS, PowerFX, .Net, Microsoft PowerApps, Power Automator, and SharePoint.**

  - Design and Develop the Initiatives Service Request Tools**,** a comprehensive system designed to address and manage new internal requests. using **JavaScript, HTML, CSS, PowerFX, .Net, Microsoft PowerApps, Power Automator, and SharePoint.**

  Sep 2021 – Dec 2021 – Software Developer Voluntary Internship - GAO TEK
  - Maintenance of Network APIs and embedded applications for GAO TEK systems and equipment. Leveraged the power of **C++** to fortify both performance and reliability, ensuring seamless operations and dependable results.

  Jan 2014 – Jul 2021 – Data Analytics and Quality Assurance Supervisor - Petrobras Business Corporation.
  - **Pioneered an AI-powered system** using **Python** script that adeptly extracted and monitored alarms and logs from oil and gas processes. By accurately predicting operator actions, this innovation effectively averted process shutdowns. Given the critical nature of interruptions in oil and gas processes, this strategic initiative ensured heightened security and translated into substantial financial savings for the Petrobras process, reducing shutdowns and improving product quality.

  - Orchestrated the successful rollout of **ISO 9001/14001** standards on offshore platforms. Took the helm in inter-audits and developed a robust database and web application to synchronize service monitoring and work permit issuances by **Java, JSF/EJB, HTML and Oracle Database**.

  - Compiled comprehensive audit reports**,** pinpointing vital variables for meticulously monitoring oil and gas processes and ensuring the product was consistently aligned with customer expectations.

  - Facilitated internal training sessions for staff, elevating their competencies and routinely showcased quarterly achievements highlighting improvements in process quality.

  Achievements at Algonquin College 2021 - 2023
  - At Algonquin College, I excelled academically, achieving Dean's Honors in two out of four terms and securing an impressive average GPA of 3.64/4.

- Demonstrating my expertise in full-stack development, I crafted a web application leveraging **Angular, Typescript, JavaScript, Node.js, and MySQL**. This application was adeptly designed to manage expansive datasets of vegetables stored in cold facilities.

- In a collaborative venture, I was an integral contributor to the VMS Blockchain project (Vendor Manager System), employing blockchain technology to efficiently generate VMS contracts by **Angular, Typescript, JavaScript, Node.js, and MySQL.**

- Enhancing user experiences, I co-designed an application that captures a user's current location from their device, allowing them to save and reference their favorite places. This was achieved using **React**, **JavaScript, Node.js, and the Google Maps API, with data securely stored in a MongoDB database.**

- Through the Java Enterprise curriculum, I honed my Java development skills, diving deep into an array of design patterns and cutting-edge technologies, including JPA, Hibernate, Spring, Jakarta, and Tomcat, among others.

- Proving my proficiency in database management, I regularly crafted intricate SQL statements and procedures on the Oracle Database as part of my weekly assignments.

- Showcasing my acumen in data analytics, I conducted advanced data analyses using techniques such as regression, kMeans, and Decision Trees. These analyses were executed on vast datasets using Python, R, and Weka, providing invaluable business insights.