

Ziad BOUGRINE

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IT Student seeking for an internship to complete the final thesis

About me

Having accrued over four years of experience as a student, followed by a four-month stint as an IT professional, I possess extensive expertise in software analysis, design, development, implementation, and testing of object-oriented and web-based enterprise applications. My skill set encompasses Java SE/Java EE, Spring Boot, Angular, and Python, with a particular focus on delivering high-quality solutions. I am currently leveraging these skills as a member of the development team at SIJ, where I am renowned for my problem-solving capabilities and highly developed development skills.

Education

2022-Currently: Double bachelor's degree of Applied Mathematics and Informatics, Fachhochschule Aachen, Germany.

2019-2022: DEUG of Applied Mathematics and Informatics, University of Moulay Ismail Meknes, Morocco

2016-2019: Baccalaureate in Physics, High school graduation of Meknes, Morocco

Work Experience

02/2023 – 03/2023: Solar Institut Jülich in cooperation with real company Brainergy Park Gmbh, Fullstack Developer

03/2023 – 05/2023: Solar Institut Jülich in cooperation with real company Brainergy Park Gmbh, Praxisprojekt as fullstack Developer

Achievement: Totally independent application – [Recommendation letter](#)

Solar Institution Jülich has been developing innovative and efficient energy utilization solutions in collaboration with industry, universities, and research institutions for over 30 years. Their focus includes solar thermal systems, energy storage, hydrogen, efficient building and system technology, and intelligent energy supply.

Over the past four months, I have successfully led a project in my current company to develop and implement a communication system between electric vehicle charging stations for cars and bikes. I integrated this system with a mechanism for communication with their batteries and solar panels. Additionally, I designed and implemented the backend system, which included a database and front-end interface for real-time monitoring of data and component statistics. Finally, I created a user registration process that provides access to our system through a REST API. The project was a success and has had a significant impact on the electric vehicle market.

The project had the following objectives:

- Set up communication between e-bike and e-car chargers and display real-time charging data in the user interface.
- Establish communication between SunGrow hardware and display real-time data on the interface using a custom-designed canvas schema.
- Develop a user management API and interface for iOS and administrators.
- Create an API for every user to make bookings for our charging stations.
- Predict the power generated by charging in our stations and the power generated by solar panels and batteries and present this information in a complex diagram.
- Maintain the software and test it in real-time.

Technologies used: Java 17, Java EE, Spring Boot, Spring Data, Spring Web, MySQL, REST APIs, Angular 12, ModbusTCP, TypeScript, Maven, Canva, Git, Dymola.

University Projects

As the lead developer, I successfully designed and developed TravelAgency, a user-friendly and intuitive website that simplifies travel planning and organization. The website offers a range of features such as support for both individual travelers and travel agencies, hotel booking, and an administrator interface to manage bookings and customer information. Additionally, I implemented a REST API to ensure seamless integration with other travel services. The project had several objectives, including:

- Creating an easy-to-use interface for travelers to organize their trips efficiently.
- Developing a booking system for hotels and other travel accommodations.
- Implementing a REST API for integration with other travel services.

- Creating an administrator interface to manage bookings and customer information.

Technologies used: REST API, Spring (Data, Security, Web, Mail, JAXB), JQuery, and JavaScript.

PentestMe is an exceptional resource for individuals interested in ethical hacking and improving their security skills. The website provides a wide range of comprehensive materials and tutorials to help users understand hacking concepts and apply practical techniques. Moreover, the website also features various tools and resources to help users safeguard themselves from attacks and enhance the security of their websites. The project aimed to achieve the following objectives:

- Offer pentesters a way to learn SQLInjection by testing it on our website and ways to prevent it in JEE.
- Provide pentesters a way to learn XSS (Reflected/Stored) through our website and ways to prevent it via JSTL.
- Offer a way for pentesters to learn Bruteforce and ways to prevent it.
- Provide pentesters with a way to learn how to upload a shell and how to prevent it via JEE.

Technologies used: REST API, JEE, JSP, JQuery, Bootstrap, JavaScript, Python, Burpsuite, Metasploit, and Hydra.

Personal Projects

- [CarLocationWebsite](#)
- [StreetCamera](#) : Full integrated website using Computer Vision in python and Spring boot Java as backend
- [CVE-2022-30190](#) : Follina 0Days Exploit
- [Virtual Mouse using Camera](#)
- [PowerSecurity](#): Used in Africa robotics Brain. Full integrated website using spring boot and AI.
- [ShellAutoExecuteTrojan Exploit](#)
- [LineTracker](#)
- [E-Learning](#) : Website to learn german, using Django Python as Backend Framework.
- [Deliberation](#) : Website to control students of the university Moulay Ismail Meknes. J2EE used as backend language.

Technical Skills

- **Programming Languages:** Java, JavaScript, SQL, JSP, Python, TypeScript, R, C/C++, Assembly.
- **Scripting Languages:** HTML, CSS, XML (XPath), JavaScript, Angular 12, AJAX, JSON, JQuery, Bootstrap, Bash.
- **Frameworks:** Spring, JEE, JSF, Hibernate/JPA, EJB, Bootstrap.
- **Libraries:** OpenMP, MPI, Java Multithreading, Selenium, Canvas, OpenCV, Seaborn, ModbusTCP, JSTL.
- **Web Services:** REST/RESTful API, Microservices
- **Tools & CI/CD:** Junit, Gitlab.
- **Database :** Oracle 11g, MySQL, PostgreSQL, MariaDB.
- **Version Control :** Git.
- **IDE Tools:** Eclipse, IntelliJ, STS, Jupyter, Webstorm, VS Code, PyCharm, Visual Studio, emu8086, CodeBlocks, Android Studio, Enterprise Architect, Postman.
- **Web/App/DB Servers:** Apache Tomcat
- **Platforms:** VMware Station, Virtual Box, Choregraphe.
- **Modeling Languages:** UML, Design Patterns, Merise.
- **Operating System:** Ubuntu, Kali Linux, Raspberry OS, Windows, Ubuntu Server.
- **Package Manager:** Maven, APT, NPM, pip.
- **Pentesting Software:** Ettercap, Metasploit, Burpsuite, Wireshark, Whatweb, Nmap, SQLmap, Beef XSS, Hydra, JohnTheRipper, Hashcat, Armitage, Cobaltstrike, FatRAT, Setoolkit, sslstrip.
- **Protocol and Server configuration:** DNS Server, OpenSSH, vsFTPd, Routing, Apache2.

Languages

French: Fluent; **Deutsch:** Fluent; **English:** Fluent, **Arabic:** Native

Additional Information

- Hobbies: Travel, Soccer, Swimming.
- Strengths: Sense of organization, team spirit, discipline and responsiveness.