Malek Bouzarkouna

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Software engineer internship application

Work Experience

Web Developer, Ex Calibra   *Summer 2024*

- **Developed** a range of web applications, including internal management tools, APIs, website organization, and custom WordPress plugins.
- **Contributed** to the development of a C++ application, enhancing functionality and improving performance.
- **Executed** web design tasks and performed occasional interventions on WordPress sites, optimizing and customizing them as needed.

Fugazi, *Full-time Manager*   *Summer 2023*

- **Managed** day-to-day operations at a busy restaurant, taking on the role of a full-time manager.
- **Greeted** customers warmly and took their orders with care and professionalism.
- **Handled** cash transactions, ensuring accuracy in financial records.
- **Prepared** orders, emphasizing both quality and speed of service.
- **Supervised** and coordinated the work of employees and delivery personnel to maintain high service standards.
- **Resolved** customer issues and disputes with diplomacy, finding satisfactory solutions for all parties involved.

Education

	Master in computer science (Excellency), *Sorbonne University* | Paris, France	*On going*
3,33/4.0	**Bachelor in computer science (Honours)**, *Sorbonne University* | Paris, France	*Oct 2020 - June 2023*
3.0/4.0	**General baccalaureate (Honours)**, *General François-Joseph Talma High School* | Brunoy, France	*Sep 2019 - July 2020*

Projects

- OCaml Project: Implementation of ZDD (Zero-Suppressed Binary Decision Diagram) Compression Algorithms   *Oct 2023 - Nov 2023*

MU4IN511 - Opening (Course Project)

- Developed an **OCaml** project focused on implementing tree compression algorithms, with a specific emphasis on **Zero-Suppressed Binary Decision Diagrams (ZDD)**.
- Gained a **profound understanding** of ZDD concepts and honed **practical skills** in OCaml programming.

- TwitKujo: Implementation of a Twitter-Like Social Network   *Jan 2023 - June 2023*

LU3IN017 - Web technologies (Course Project)

- Developed a Twitter-like social network as part of a university project.
- Acquired proficiency in **React**, **JavaScript**, **HTML**, **CSS**, **MongoDB**, **Express**, **Express-Session**, **Bcrypt**.

- WireOwl: Implementation of a Custom Wireshark   *Oct 2023 - Dec 2023*

LU3IN033 - Network (Course Project)

- Developed an application similar to Wireshark as part of a university project.
- In-depth understanding of different network layers, manipulation of protocols such as **TCP**, **UDP**, **HTTP**, **IPV4/IPV6**, **ARP**.
- Implemented in **Python** with a graphical user interface (GUI).
- Generated **PDF** reports as part of the project output.

- System Vote Using Blockchain *Jan 2022 - April 2022*

LU2IN006 - Data structure (Course Project)

- Realization of an electoral system vote, each participant has the ability to vote and/or to candidate for an election. The project had been made in **C** language and writes encrypted votes or the candidates' profile in a **file**.
- The protocol used is the **RSA Protocol**. We also used Data structures such as **Hashtable** and **Blockchain**.

Skills

Programming	Python, C/C++, Java, Git, LaTeX, HTML, JavaScript, React, Express, MongoDB, OCaml, MIPS Assembler, SQLite, Haskell, Go, Rust, Docker, Django, TypeScript, Redux
Software	Linux, Logisim, Mars, IBM Rational Software Architect Designer, Unreal Engine, Wireshark
Computer Science	Algorithm, Data Structure, Database, Networks, Computer Architecture, Operating System, Logic, Compilation, Concurrent Programming
Mathematics	Algebra, Topology, Probability, Series, Arithmetic, Differential Equations

Languages

French	Native
English	B2
Arabic	B1