Ossama Elhelali

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EDUCATION

University of Waterloo - *Recipient of president's scholarship* — Waterloo, ON
Candidate for Bachelor of Computer Science — Sep 2022 – Present

Wilfrid Laurier University — Waterloo, ON
Candidate for Bachelor of Business Administration — Sep 2022 – Present

AWARDS

1st place - [Microsoft's] 2023 Green-a-thon – *Python, PowerBi, Power Automate , Digital Twins , Azure HSM*
- Developed a construction materials marketplace to reduce waste and promote sustainability.

1st place - Seeds of Leadership's **2023 AI Summit** - *Python, ChatGPT's API*
- Designed an AI-driven web-scraping tool to automate grant discovery and applications for SmileCanada (NGO).

EXPERIENCE

Software Engineer — Waterloo, ON
IIC UWaterloo – *Typescript, Next.JS, Vercel* — May 2024 – August 2024
- **Accelerated search results by 20%** by implementing a dynamic filter to remove outdated and empty records.
- **Cut email manual errors by 30%** through automated email workflows using Google App Script.
- **Developed multiple sponsor pages** that curated to each clients' highlights and benefits.

Application Developer Intern — Mississauga, ON
Kenna Technologies – *Typescript, React, SQL, Node, Express, AWS* — Jan 2024 - April 2024
- **Led the migration** from Lotus Notes, HTML, and CSS to a full-stack Typescript, React, Node, and SQL service.
- **Reduced API overhead by 87.5%** through deep analysis of workflows and callbacks, improving overall performance.
- Created SQL backend and middleware agents to represent data in a visually appealing format on the frontend.

Software Engineer — Burlington, ON
Coach Chihab Group – *Vue.JS, Firebase* — Sep 2023 – Dec 2023
- Implemented a Vue.JS-based check-in platform, **cutting check-in time by 95%** and managing over 50 attendees.
- Utilized Firebase Real-time Database API for **dynamic attendee check-in monitoring** and visualization.
- Analyzed 5+ CMS and headless CMS platforms based on user profiles and integration capabilities.

Software Engineer Intern — Burlington, ON
MuslimDo - *Vue.JS, PHP* — May 2023 - Aug 2023
- **Reduced API overhead by 34%** through payload size reduction and lazy loading implementation.
- **Cut drop-off rates by 12%** by streamlining the signup and data collection process.

PROJECTS

[Chess] - *C++, Bash, Linux, XQuartz*
- Developed a **full chess game in C++** using advanced OOP, implementing features like checkmate, castling, and more.
- **Created 4 sophisticated AI algorithms** for computer opponents, enhancing gameplay depth and user engagement.
- Earned a **grade of 104.3%,** by implementing extra features like undoing movements.

[Sortify.AI] - *JavaScript, React Native, TensorFlow (DeerHacks 2023)*
- Created an **ML-powered** app for **real-time waste sorting**, featured at UTM's 2023 DeerHacks Hackathon.
- Seamlessly integrated **TensorFlow and React Native** for efficient performance and **cross-platform** compatibility.
- Compiled and leveraged a dataset of **22,000+** images to train a high-accuracy **ML model** for waste identification.

[NeighBoard] - *JavaScript, Vue.JS, Firebase, PlacesAPI*
- A Vue.JS fullstack community platform for sharing neighbourhood activities and reports.
- Implemented PlacesAPI, reducing address entry time by 41.25% in preliminary tests.

[LeetCode Hints] - *JavaScript, Node.JS, Express.JS*
- Developed an AI-assisted tool for on demand hints and solutions to LeetCode challenges.
- Implemented server-side logic using Express.JS and Node.JS, boosting application's reliability.

[CVAT customization] – *CVAT, OpenCV, JavaScript*
- Currently customizing an open-source annotation tool to meet specific project needs and enhance functionality.

TECHNICAL SKILLS

Languages: C++, C, Python, JavaScript, TypeScript, PHP, HTML, CSS
Frameworks: TensorFlow, OpenCV, Keras, Next. JS, React.JS, Vue. JS, Node. JS, Express. JS, React Native, Laravel, Grafana
Developer Tools: Docker, Kubernetes, Google's Teachable Machine, Git, GitHub, Linux, Firebase, Jira, Agile, Scrum, Figma