

Zaid Okal

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Education

Western University | BESC - Software Engineering

September 2020 - April 2025

Dean's Honor List | Western Scholarship of Distinction

Coursework — Database Systems, Software Design, Algorithms, Networking, Software Construction, Data Structures

Experience

Software Developer in Test Intern — J.D Power, Remote

May 2023 - August 2024

- Engineered **Java-based** automation utilities with **Serenity BDD** and **RESTful APIs**, improving repetitive task efficiency by **42%** through automated build triggers, parallelized test execution, and dynamic reporting across distributed environments
- Led the migration from **Serenity** to **Playwright**, leveraging **TypeScript**, **Node.js**, and **Playwright Runner** to achieve a **70%** reduction in pipeline execution time via multi-threaded execution, and optimized distributed load balancing
- Architected containerized testing frameworks using **Kubernetes** and enhanced **GitLab CI/CD pipelines**, increasing test coverage by **22%** through **Dockerized** suites and parameterized tests, with real-time monitoring and analytics using **Grafana**
- Developed integration test suites using **Gradle**, **JUnit**, and **Allure**, automating regression testing workflows and integrating with **GitLab CI/CD pipelines**, improving deployment automation efficiency by **35%** and optimizing test orchestration
- Accelerated project delivery by **30%** through effective cross-functional **collaboration** and **agile** methodologies, addressing key bottlenecks and improving team workflows, while streamlining processes and ensuring quality standards were met
- Received the **Power Award**, **Innovation Award**, and was recognized as a **Star Intern** out of 50 interns

Data Analyst Intern — Co-Operators, London, Ontario, Canada

May 2022 - August 2022

- Diagnosed and resolved complex client database issues by deploying advanced troubleshooting protocols, data integrity checks, and performance optimization techniques, driving a **15%** increase in client satisfaction, retention, and long-term loyalty
- Designed and executed strategic organizational initiatives to optimize the online registration process, achieving a **26%** surge in client registrations and significantly enhancing overall business productivity and operational efficiency

Projects

RBC — GenAI-powered Sustainable Finance Evaluation System — Python

- Developed a **GenAI** system for **RBC** that automates the assessment of companies' compliance with the **RBC Sustainable Finance Framework**. Leveraging Large Language Models to analyze public reports, **AGMs**, stakeholder communications, and news sources, reducing manual effort while enhancing the accuracy and integrity of sustainable finance evaluations

CourseFlow — Node.js, React.js, Express.js, MongoDB & Google Cloud Platform

- Architected a **MERN stack** platform for university instructors, enabling dynamic **CRUD operations**, real-time updates, and version control of course outlines, streamlining instructional workflows and enhancing system scalability
- Implemented advanced caching strategies and optimized database queries, improving data retrieval times by **45%** and ensuring high availability and fault tolerance, while leveraging **GCP** for scalable cloud infrastructure and automated deployment

Music Enthusiast @ Hack Western 9 — JavaScript, Node.js & React

- Engineered a **RESTful API** using **Node.js** and **Express** for music data retrieval, integrated with a responsive **React** frontend. Implemented **HTTP** caching headers, in-memory caching mechanisms, and efficient state management techniques to reduce API latency by 60%, minimize server load, and enhance system scalability, performance, and fault tolerance

Projection — C# & Unity

- Built an open-world RPG in **Unity**, with AI-driven boss battles utilizing behavior trees and finite state machines, procedurally generated terrains for expansive exploration, and a dynamic mission tracking system using event-driven programming

The Glacier @ Hack Western 8 — JavaScript, Node.js & React

- Engineered a responsive water intake tracking application with a **RESTful Node.js** backend and a **React** frontend. Integrated real-time hydration monitoring, dynamic UI updates and state management for an interactive user experience

Skills

Programming Languages Python, Java, JavaScript, C#, TypeScript, HTML/CSS, XML, SQL, Swift

Frameworks & Technologies React.js, Node.js, Express.js, JavaDB, MySQL, Git, AWS, Unity, JavaFX, MongoDB, GCP