

Neesh Withanagamage

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Experience

Intermediate Software Developer, Bioinformatics Solutions Inc. – Waterloo, ON June 2023 – February 2025

- Led the migration of **Cassandra** repositories to an abstract access layer, enabling **MySQL & SQLite** integration, saving **10+** developer hours while increasing system stability
- Designed & implemented **event-driven microservices**, enhancing scalability & reliability of queue-based system
- Reduced MySQL high-throughput writes by **30%** through batching, indexing, and database engine tuning
- Redesigned data pipelines to eliminate bottlenecks, increasing throughput by **10%** and enhancing system efficiency
- Developed a **highly available** data service using Java Handlebars, enabling parallel exports of analytical data
- Led the conversion of class components to functional components, improving code cleanliness and maintainability
- Optimized **RESTful APIs** with **Google Protocol Buffers**, reducing payload size and improving data load times
- Documented the system architecture and microservices, outlining their functionality and interactions for improved team understanding and maintenance
- Collaborated with **cross-functional teams**, including R&D, project managers, to transform complex algorithms and technical requirements into intuitive, user-focused features

Junior Software Developer, Bioinformatics Solutions Inc. – Waterloo, ON March 2022 – June 2023

- Built high-throughput real-time workflows using **Akka Toolkit**, improving distributed data processing speed
- Managed & optimized **Cassandra** write performance using sharding & partitioning, distributing load across nodes
- Implemented frontend components in **TypeScript** for interactive data visualization and analytics
- Utilized **JUnit & Mockito** to test a large portion of the codebase before merging, ensuring bug-free deployments
- Developed dynamic filters in TypeScript for accurate data retrieval and visualization
- Resolved **50+** critical bugs across multiple application layers, ensuring smooth deployments under tight deadlines

Systems Analyst, Loblaw Companies Limited – Brampton, ON April 2021 – March 2022

- Developed and configured Jira modules for **System Integration Testing (SIT)** and **User Acceptance Testing (UAT)**, reducing manual testing efforts by over **30+ hours**
- Conducted comprehensive System Integration Tests on Manhattan Active software, ensuring robustness and reliability
- Contributed to the creation, modification, and validation of system requirements and design documents, reducing software defects by more than **40%**
- Built and validated current state processors, integrating new features essential for automation deployment

Projects

MyGamingList December 2022 – March 2023

- Developed a full-stack web app using **Spring Boot** and **React** to track gaming habits and write reviews
- Integrated a **public API** to fetch & display real-time game data, enhancing user experience
- Designed and managed a MySQL database to store user game progress and reviews
- Implemented search & filtering for seamless game discovery and personalized tracking using MySQL full text search

Hospital Communication Web Application September 2020 – April 2021

- Led the development of a **real-time messaging** system using JavaScript, refining communication efficiency for healthcare staff
- Designed & implemented a MySQL database schema to capture complex communication networks
- Developed RESTful APIs to enable seamless data exchange between frontend and backend
- Collaborated on wireframes & prototypes using **Figma**, ensuring an intuitive UI aligned with user needs

Technical Skills

Languages: Java, Typescript, JavaScript, SQL, NoSQL, CSS

Frameworks and Tools: Spring Boot, Akka, Cassandra, MySQL, React, Tailwind, Postman, Git, Jira

Methodologies: Agile, Reactive Programming, Microservice Architecture

Education

York University – Honors Bachelor of Engineering, Specialized in Computer Engineering

April 2021