Roman Wu

github.com/romanywu | linkedin.com/in/romanywu | roman.y.wu@gmail.com | +1 289-834-0229

Technical Skills

Programming Languages: Java, Python, SQL, PL/SQL, NoSQL, GraphQL, JavaScript/TypeScript, Shell Scripting
Technologies: Spring Boot, AWS (EC2, S3, RDS, Lambda, CodePipeline), Redis, Docker, React, Spring Cloud, Kubernetes, Nginx, RabbitMQ, Databricks, MyBatis, Zookeeper, Git, Jenkins, Oracle, PostgreSQL, OAuth2, Postman, MongoDB
Certifications: AWS Solutions Architect Professional, Databricks Data Engineer, Kubernetes Application Developer
Relevant Coursework: Data Structures and Algorithms, Operating Systems, Databases, Distributed Systems

Experiences

Business Analyst | *McKeil Marine Ltd, Burlington, ON*   *Jun 2024 – Present*
- Developed a **distributed pricing model** in Python, integrating **21 real-time data sources** like fuel prices and weather, optimizing vessel pricing, and increasing overall profitability by 5%, providing a key competitive advantage.
- Spearheaded an automated Tangible Common Equity system using **Azure (VM, SQL Database)** and Java, resolving 95% of discrepancies, boosting data accuracy by 20%, and improving efficiency for 20+ users daily.

Backend Software Engineer | *Prologic Consulting, Markham, ON*   *Jan 2023 – Jun 2024*
- Architected a Java-based **RESTful API** processing 500,000+ daily requests, optimizing queries and deploying **Redis caching** to maintain **99.9% uptime**, ensuring system reliability and enhancing user satisfaction significantly.
- Led the transaction from monolithic to **microservices architecture** using Java and **Spring Boot**, cutting deployment time by 30% and improving scalability, fault tolerance, and maintainability, resulting in greater operational efficiency.

Software Engineer Intern | *Sojo Canada Inc., Toronto, ON*   *Sep 2022 – Dec 2022*
- Engineered a Java-based **microservices architecture** for an e-commerce platform, enabling seamless order tracking and payment processing, leading to a 15% increase in sales in the first quarter post-launch.
- Designed and implemented backend services for a SaaS platform on **AWS (S3, RDS, Lambda),** optimizing data processing pipelines and leveraging **AWS auto-scaling** features to improve reliability by 18% for 1000+ users.

Operations Data Analyst Intern | *Harvest Fund Management, Remote*   *Sep 2021 – Dec 2021*
- Optimized a financial database using **Oracle** and **ETL processes**, improving data accuracy by 20% and enhancing accessibility for 15+ analysts with real-time analytics, supporting informed financial decisions.
- **Automated reconciliation** of trade and cash positions using Java, VBA, and Python, reducing manual processing errors by 40% and speeding up the month-end close process by 2 business days, improving reporting speed.

Projects

VessMark | An Open-Source Financial Services Platform
- Developed a scalable crowdfunding platform using the **SSM framework** and **microservices architecture**, deployed on **AWS**. Secured with **Spring Security** and **OAuth2**, built **RESTful APIs**, used **MyBatis** for database interactions, and integrated **Redis** for caching. Optimized with **GraphQL** and **DataLoader** to resolve N+1 query issues efficiently.

DataStreamPy | An Unpublished SQL Server and Databricks Syncing Library
- Developed a Python library for migrating data from **SQL Server** to **Azure Databricks**, leveraging **Apache Kafka** for streaming and **Spark** for distributed processing. Integrated a **React** and **TypeScript** dashboard for real-time monitoring. Optimized pipelines, reducing latency through improved task parallelism.

ShipTrack | An Unpublished Logistics Optimization Platform
- Developed a **microservices-based** fleet management system using Java, **Spring Boot**, and **React**, optimizing vessel tracking and scheduling. Deployed services on **AWS EC2 and RDS**, implemented **Redis caching**, achieving 99% uptime and improving operational efficiency by 30% for over 1,000 clients.

GitHub Pages| A Personal Portfolio Website
- Developed a personal website using **TypeScript** and **React**, hosted on **GitHub Pages** with **AWS SES** for email functionality, utilizing **React** hooks to ensure scalability, maintainability, and a smooth user experience.

Education

University of Waterloo - Bachelor of Mathematics; Waterloo, ON   *2020 – 2023*