Bill Sheng

billsheng.com
github.com/billxsheng
linkedin.com/in/billxsheng
bxsheng@uwaterloo.ca

Skills

Languages:	Java • Python • JavaScript • TypeScript • SQL
Frameworks:	Eclipse Vert.x • Node • React • Angular • Socket.IO • Spring • JUnit/Mockito
Data:	Hadoop • Spark • Kafka • Cassandra • MongoDB • ElasticSearch • MySQL
Infrastructure & Tools:	Docker • Kubernetes • Jenkins • Azure • Git • phpMyAdmin

Professional Experience

Web/Database Applications Architect | NVIDIA   Santa Clara, May 2020 – Aug 2020

- Led the end-to-end development of a reactive ETL pipeline (5M+ msgs/day) that processes critical test data from 100+ NVIDIA projects
- Wrote a Python script that purges Artifactory artifacts based on data retention rules, removing ~5GB of unused resources every month
- Converted a monolithic app into a reactive Java microservice using Vert.x, raising throughput by ~6x and enabling dynamic scalability
- Leveraged ApacheBench and JProfiler to identify bottleneck operations in posting API, refactored code to decrease latency by ~23%
- Took the initiative of integrating SonarQube into the build processes of 10+ projects, enforcing quality policies for production code

Full Stack Developer | LCBO|next   Waterloo, Sep 2019 – Dec 2019

- Built a cron-based web scraper that extracts marketable content from 950+ webpages, increasing app conversion paths from 9 to 400
- Developed a Node ETL pipeline that tags products with new properties to improve search precision, decreasing search exits by 25%
- Designed an indexing strategy with ElasticSearch aliases that prevents data loss during API crashes in 2 large-scale data pipelines
- Co-built and deployed a Node recommendation engine, leveraging compound ElasticSearch queries to address customer indecision

Software Developer | OpenText   Toronto, Jan 2019 - Apr 2019

- Developed a monitoring service with Spring and Thymeleaf that reports on the state of Java Agents, notifying users of build timeouts
- Refactored a high-profile deprecated dashboard into an Angular PWA used by 800+ stakeholders at annual enterprise conference

Infrastructure Specialist | Canadian Tire Corporation   Toronto, May 2018 – Aug 2018

- Streamlined inefficient VM configuration processes by writing PowerShell automation scripts used by 50+ employees across IT teams
- Engineered large-scale virtualized deployments with VMWare, updating 100+ corporate computers with no ensuing complications

Leadership Experience

Software Developer | UWBlueprint   Waterloo, Sep 2019 – Dec 2019

- Built a web platform for a non-profit accelerator group (~100 users) aimed to scale and manage their application selection process
- Co-designed a document data model to represent application flows and developed CRUD operations with React/Redux and MongoDB

Projects

Oubre Sentiment Analysis

- Implemented a data streaming platform with Java that performs sentiment analysis on tweets regarding controversial athletes
- Used Kafka and Spark to ingest, analyze, and load data into a Cassandra data warehouse, allowing results to be queried/displayed

Media Management Platform

- Developed a PHP web application that interacts with a MySQL database designed and managed on phpMyAdmin
- Wrote complex SQL queries to provide functionality for podcast subscriptions, user profiles, and public/private playlists

Education

University of Waterloo | 3B Management Engineering   Sep 2017 - Apr 2022 (expected)

Relevant Courses: Database Systems, Data Structures and Algorithms, Data Mining, Object-oriented Programming