

Result Oriented **Senior Software Engineer** with **5+** years of experience in **full stack system design, Pipeline Framework Design and Data Engineering**. Experienced in all project phases in Agile way, Rich design & development ideas, vision and lesson & learn on **Smart Platform, Data Warehousing** as well as **cross-platform apps**.

EXPERTISE

- ✓ **Cross-Platform Application** Design
- ✓ **End to End System Solution** Design
- ✓ Amazon AWS / Microsoft **Azure** Cloud
- ✓ **Process & Workflow Automation**
- ✓ **Microservices** using **Spring Boot**
- ✓ **Mobile, Web & API interface design**
- ✓ **CICD** - DevOps & Release Management
- ✓ **Leader Ship**

QUALIFICATIONS

- Strong capability to work simultaneously on multiple projects in a fast-paced environment in an **agile way**
- **Out of box** and **creative thinking**, self-motivated, excellent problem solving and analytical skills.
- Innovative technical design of **Backend Authentication Process across Microservices**
- Exceptional ability to establish a **high level of trust with clients** and ensure that business objectives are met.
- Strong **leadership** on fully understanding of infrastructure, requirement clarification, Solution exploration, work estimate and delivery timeline follow up, make sure proper assignments to team members and performance consistency, **achieved top performed team** in terms of delivery efficiency through **project control**.

TECH SKILLS

- Programing Language: **Java, Python**, Objective-C, Swift, C, C++, Shell script, SQL
- Framework: **Spring Boot**, Guice, **NODE.JS, React**, Angular, jQuery, Ajax, Bootstrap
- **IDE**: XCode, VS Code, IntelliJ
- **CICD**: Bit Bucket, Jenkins, Docker, Fortify, SonarQube, Swagger, Black Duck
- **Production Monitoring**: Dynatrace, Splunk,
- Cloud Platform & Operation System: **AWS, Azure, Heroku, UNIX, Linux, OS X, Windows**
- Databases: **Hadoop-AWS EMR, Redshift, Azure SQL DB, DynamoDB**, Mongo DB, DB2, MySQL,
- Project Tools: **Jira, Service Now**, PagerDuty
- Cloud: Databricks, Jenkins, Docker, Azure Data Lake Gen2, Azure Eventhubs, Stream Analytics, Azure SQL DW, HDInsight. Amazon S3 bucket, AWS Glue, Azure Redis

PROFESSIONAL EXPERIENCE

Scotiabank Digital Factory, Toronto, ON, Canada

Software Development Technical Team Lead | Nov 2021 – Present

Contractor from UnisysTech Consulting, Led the development team to build the cross-platform application that introduced a digitalized solution for Households Program available for Canada wised customers from both digital channel and branch channel

- **Modern Digital Platform design** which includes, but not limit to applications, service architecture and data flow
 - Collaborated with Solution Architect, UX designer, and Product Owner; delivered design and development of application, service architecture, API, data flow and UI structure for Group and Family banking benefit program.
- **Development and project planning, controlling & tracking**
 - Designed and developed application and service level code structure and caching mechanism; collaborated with the development team to deliver the technical solution on track with **leading a team of 6 developers**.
- **Innovative process design of automated authentication** among MicroServices & Single Sign-on
 - Delivered technical solution for service level authentication and single sign-on authentication
- **Automation Intelligence Process** evaluation and best practice exploration, demonstration and training
- **Continuous Integration and Continuous Deployment** & release structure, production support strategy
 - Collaborated with Delivery Lead to build continuous deployment & delivery solution, release strategy & process, collaborating with support engineer team to build production support and incident escalation model
- Proposed dependency structure and collaborating with the downstream service team for enterprise solution design
- Prototype functionality build to present before real development to reduce the risk of project failure

Environment: Microsoft Azure, NodeJS, ReactJS, Dynatrace, Fortify, Docker, Jenkins

BUSINESS START-UP

Software Design Architect | Jun 2021 – Oct 2021

Developed base framework of mobile platform for Real Estate

- **Process design of mobile app**, which targeted internal mobile platform for agents of a real estate company
 - Cloud infrastructure, backend database, API & UI Architecture design, finished base framework of a mobile platform
- **AWS Cloud based infrastructure Design**
 - Utilized AWS microServices and designed framework using VUE.js and node.js,
 - Database backend design via MySQL, AWS RDS and MogoDB
 - File management using S3 bucket
 - **CDN using AWS Cloud Platform?**
- **Backend Database and Pipeline Design**
 - Sourced, extracted and cleaned data from MLS, and designed major tables for both current and history data.
- **Front end UI design** on top of WeChat
 - Finished a House Search Engine, Map Exploration as well as near-real time house market information interface.

Environment: Amazon Cloud, Android, iOS, VUE.js, javascript

Scotiabank Digital Factory, Toronto, ON, Canada

Senior Software Engineer | Oct 2019 – Jun 2021

Lead Development Engineer with rich experience designing & building the latest Scotiabank retail banking application with enterprise-level micro services architecture

- **Digital Solution to Customer and Product's Self-serving Onboarding**
 - API design, development, and release; delivered micro-service solutions consumed by modernized web applications
 - Multi-Services function definition, categorization and functionality design
 - Database volume and constraint identification and scalability design
- Enhanced integrating solutions for supporting **Installment Plan of Scotiabank Visa** products
 - Architecture review, API design, development, and release; delivered micro-service solutions for cross-platform consumption
- **Service-to-service Authentication** enhanced encryption key rotation process
 - OAuth Authentication layer development, allowed service to access other company-wide applications under the protection
- Urgent Solution to **Covid-19 Mortgage & Credit Account Deferral Program**
 - API design and development, delivered solution under urgent situation and limited timing
- **Remote Deposit Optimization** to replace traditional cheque image viewing process
 - API development, enhanced cheque image, which significantly reduces the cost of validating a cheque

Environment: Microsoft Azure, Java, Spring Boot, Dynatrace, Fortify

AMAZON

Software Development Engineer | May 2017 – Sep 2019

Development Engineer with rich experience building Automation Intelligence platform, logistics fulfillment module development and Platform Migration. Responsibilities are across the full cycle of SDLC practice

- Fulfillment **Inbound Quality Check Management Platform** (Automation Intelligence)
 - API & UI Architecture designer, deployed worldwide with on-boarded 5+ quality check programs
- **Data Warehouse migration to Redshift** based Data Lake platform to achieve Oracle-free Amazon
 - Delivery lead, migrated 100 tables, fixed 20M+ bad records, 50% increase of consuming our data by global financial business through enhanced and high efficiency pipeline framework design.
- **Inbound Receiving Process Optimization** – UI design and business client engagement
 - Module developer, deprecated the legacy receive tool for North America, improved labor efficiency of PREP Flow by 16%
- Functional design and implementation of **Auto-Identification of PREP Ownership**
 - Delivery lead, reduced material & Labor cost by 40%
- **Hadoop Cluster Migration from local to Amazon S3 and EMR Cloud** with encryption enhancement
 - Delivery lead, 50% decrease of time cost for job run, reduced maintenance cost by over 30%

Environment: Amazon Web Services, Hadoop, Java, Spring, ReactJS

IBM CANADA

Software Developer – IBM Analytics | May 2015 – Apr 2016

Enterprise level web and mobile design with contribution to open source community related with DB2 development

- 2 projects focus on Web, mobile design and development
- **DB2 Certification Exam Multi-Platform Application** - Development lead with other two team members delivered Responsive Web Application using ReactJS framework, designed iOS Application using Swift language and various optimization libraries. Developed Web Server and REST API services using Node.js and Express frameworks
- **DB2 ODBC Driver API enhancement to be compatible with Swift** - Collaborated with IBM global mobile development teams, designed and delivered IBM DB2 ODBC driver for Swift 3.0 programming language for targeting new generation of iOS developers
- Responsibilities includes requirement collection, Proof Of Concept demo, testing and training others
 - Modernized DB2 products website and made contributions to open source community.
 - Analyzed plan, direction, structure, and requirements via social media networks regarding client organization
 - Prototyped, Designed, developed and tested mobile applications on multiple platforms for various exhibitions
 - QA testing for DB2 new versions; Training new internship students

Environment: Java, Swift, Objective-C, MongoDB, PHP Node.js, ReactJS, AngularJS, jQuery, Ajax, Bootstrap, Cordova, REST API

EDUCATION

Bachelor of Engineering, Computer Engineering | Sep 2012 - Apr 2017

University of Toronto St. George

Award: \$5000 Faculty of Applied Science and Engineering Admission Scholarship

Machine Learning on Coursera (Jan 2017)

Engineering Software as a Service on Edx (Aug 2016)

DB2 Fundamental certification (May 2015)

INTEREST

– *iOS app development* - Taurus Stock Analytic UHelp VMWatch Cluebox Panpan Wechat

Programming Language: Python3, Swift, Objective-C, Node.js, PHP, JavaScript+CSS+HTML5 | Host on: Heroku

GitHub: <https://github.com/TonyZT132>

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