

Thomas Lee

An Experienced Software Engineer and Certified Scrum Master

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SUMMARY

- 6+ years working experience as a software engineer in **Agile, multi-functional scrum team**
- **Java** (10+ years), Relational DBMS including **MySQL**, Oracle, PostgreSQL and IBM DB2 (10+ years), Developing **Backend RESTful APIs** (3+ years), **Unit testing and UI/API testing** (3+ years), Experience on distributed systems, Source control including SVN and GIT (6+ years)
- On hand experience with Linux (CentOS, Ubuntu), Cloud Systems (AWS EC2, RDS), **Docker**, Web Servers (Tomcat, Glassfish), Jira, Confluence, Fisheye+Crucible, Bamboo, HTML5 CSS
- Strong communication skills and a solid understanding of the software design/architecture process
- Participated in multiple projects for developing RESTful APIs
- Good at learning new technologies and skills

WORK EXPERIENCE

Software Developer at Fresche Solutions (Sidney BC) - C++, PHP, Angular, DB2, IBM Watson API

February 2019 - Present

- Participated in designing and implementing RESTful API services with C++ and Angular
- Developed web page, data reports, and integrated AI templates using C++, Java, PHP, and IBM Watson
- Wrote UI tests and API tests using PHPUnit and Selenium

Software Engineer 2 at Illumina (Victoria BC) - Groovy, Java, PostgreSQL

February 2017 - January 2019

- Developed new features and fixed bugs on integration packages between a genomics lab management system with XML REST API and DNA sequencing instruments, using file-based and JSON REST API based communication with the instruments
- Completed documentation, code reviews, and dev/regression testing

Developer at Silvacom (Edmonton AB) - Java, AngularJS, ArcGIS API, PostgreSQL, Hibernate

July 2014 - January 2017

- Developed map-based online enterprise applications in a Scrum team using Java, AngularJS, PostgreSQL, Spring, Hibernate, NodeJS, Docker, HTML5, and ArcGIS API for JavaScript
- Wrote database SQL & PL/pgSQL scripts and created Jasper Report templates

Software Engineer at Gourmet Secrets (Edmonton AB) - Java, JSP, AWS EC2

June 2013 - June 2014

- Developed new features and fixed bugs on the shopping cart application using Java/JSP and deployed it onto AWS EC2
- Developed sales analysis/warehouse management tool using JSP
- Maintained web servers and databases systems

RECENT PROJECTS

RESTful API v2 for Nexus (2019, Fresche Solutions)

- Nexus is an IBM i-hosted web portal that let clients access to enterprise information from their browsers. Nexus provides the RESTful API for the clients, so they can develop the front-end pages of their own.
- Participated in designing and developing the second version of RESTful API with C++ and wrote Tests for API and UI with PHPUnit

IBM Watson API templates for WebSmart (2019, Fresche Solutions)

- WebSmart is a rapid development tool for creating ILE, PHP and Node.js web applications. Responsive templates help you create applications in minutes, which can be customized in the WebSmart IDE.
- Created ILE and PHP templates for creating XLSX report with Java / Apache POI and for integrating IBM Watson API with PHP

Sequencer API (2018, Illumina)

- The goal of the project was to build a server that communicates with the API client of DNA sequencing instrument to replace the existing file-based integration
- Wrote the API endpoints using Swagger Editor based on the specification document from the instrument software team of Illumina
- Tested the API endpoints and mock responses with NodeJS server stub
- Implemented responses to calls including run complete, run errored out, and run ended by user in Java
- Applied styles to the login page and login success/fail pages

NovaSeq 2.2 Integration Package (2017, Illumina)

- Implemented new workflows and updated existing protocols to support new flow cell types using Groovy
- Changed configurations and added new user defined fields based on the specification document
- Updated a module to create a new automated run-recipe and to parse run parameters
- <https://blog.basespace.illumina.com/2017/12/01/basespace-clarity-lims-novaseq-integration-v2-2/>

Rebuilding Consultation Tracker (2016, Silvacom)

- Deployed NodeJS seed project and PostgreSQL database on Docker to rebuild a legacy application
- Set up the automated build and release process that creates Docker containers and pushes them onto the Docker hub using Bamboo server

Bio-Resource Information Management System (2016, Silvacom)

- The goal was to build an application that shows Alberta's biomass and ecosystem services
- Implemented application from the front end to back end using AngularJS, Java, ArcGIS API, Jasper Reports, and PostgreSQL
- Worked on 1) scenario module that displays the biomass data of selected regions from the map, 2) administrator module that manages users and scenarios, and 3) report module that generates scenario report in PDF file format using Jasper Reports libraries
- Wrote SQL and PL/pgSQL scripts for Jasper Report templates and created the templates using Jaspersoft Studio
- Implemented RESTful backend functions to create/read/update/delete for scenarios, users, and reports
- <https://app.brim.ca/brims/>

EDUCATION and TRAINING

Certified Scrum Master, Scrum Alliance (Oct 2017)

- Completed two days training on the 18th and 19th of October 2017 and passed the test

Occupational First Aid Level 1, WorkSafeBC (Sep 2017)

- Completed one day training in September 2017 and passed the test

PhD in Computer Engineering, Catholic Univ. of Korea (Mar 2006 – Feb 2010)

- Awarded National Scholarship and achieved early completion of coursework
- Research Interests: Personal Media and Social Networks. Web Data Mining, Blog Search Engine, Semi-structured Data Indexing
- Worked as RA and TA in the Database Systems Lab for 6 years

Master degree in Computer Engineering, Catholic Univ. of Korea (Mar 2004 – Feb 2006)

- Awarded Academic Excellence