

# **BILL TSAY**

**SOFTWARE DESIGN & DEVELOPMENT** 

## **KEY COMPETENCE**

Software Development Lifecycle Management.

High Performance Team Building. System Integration and Technical Supports.

Enterprise and Business Model Architecture.

New Product Research and Architecture.

Emerging Technologies and Solutions.

# **SKILLS**

Big Data Analytics in Hadoop, Spark, Solr or Druid platforms.

Spring Framework, Spring Boot.

Machine Learning Algorithm and Framework, System Design.

Multiple years' experience in Java, Python, C/C++, Javascript, Scala etc popular programming Languages.

OSGi Highly Modular Java Systems.

Portal, CMS application and systems, IBM Websphere, JBoss &

# **EXPERIENCE**

#### **SOFTWARE CONSULTANT • CISCO • 2017.09 - 2019.03**

DasCODE/DasDATA is a cloudified open development environment to provide a holistic integrated development experience while focusing on accelerating time-to-capability and increasing operational efficiency. We are the team to design and build platform, applications, as well as the security, integrity and manageability from an enterprise infrastructure.

Platform as a Service is the capabilities provided to the developer to deploy onto a cloud infrastructure, developer created, or acquired applications, and development environments created using programming languages and tools supported by the provider. The developer does not directly manage, or control the underlying cloud infrastructure; including network, servers, operating systems, or storage, but has control over the deployed applications, and environments.

On the other hand, DasDATA monitors all activities in DasCODE cloudified environment and leverage Big Data stack to generate notifications, reports and dashboard for the management.

The technology we use including Apache Karaf as osgi component container and runtime. Spring Framework for component oriented development and Dependency Injection infrastructure. Spring Boot as REST webservice in war packages and deploy within Karaf. Scala and Apache Spark with data injections such as Kafka to develop Analytics of DasDATA. Storages include Cassandra and Relational databases.

#### PRINCIPLE SOFTWARE ENGINEER • SOLRUP • 2016.07 - 2017.08

Solrup is a dream company established by school professor and classmates with great idea in AI software juggling probabilities of machine learning from social media and text data.

We are exploring a few opportunities such as Social Analytics that runs in clients' environment or public cloud to provide analysis and development of customer/product sentiment analysis profile.







#### Weblogic.

Trading settlement systems, Financial Information Transaction and Portal System.

E-commerce high profile, transaction heavy web site system.

Web services integration, security and single sign on.

**Business Process Workflow and** Notification System.

**Enterprise Information Integration** and Web Services System.

Information Retrieval and **Application Performance** Monitoring System.

SCADA, Manufacturing Data Analysis and Dashboard. **Business to Business Messaging** System.

Application migration and performance monitoring.

Further application such as Social Miner that can analyze social media stream for competitor weakness and strengths for business needs.

Technology used includes Apache Open Source, Open API (Swagger) and popular Machine Learning Libraries.

## SENIOR SOFTWARE DEVELOPER/LEAD • SPLUNK • 2011.11 - 2016.6

Splunk is specialized in the context of monitoring large scale, distributed mission critical applications and systems. Industries use Splunk in many ways: to isolate problems, diagnose and troubleshoot issues, to monitor performance and service levels, to connect transactions across different components of the infrastructure and to provide operational insights about the application that aids in IT and business decision-making. Many of these uses would traditionally have been categorized as "Application Performance Monitoring" except that Splunk does more than just monitor the application – it also makes the data relevant to operational decision making.

My role is to architect, develop with development team in various projects. The responsibilities include

- Information Retrieval Engine in REST web service protocol design and implementation.
- Java REST client API, JavaScripts (Foundation, AngularJS, NodeJS etc), UI components, ajax REST client API.
- Data ingestion technologies that significantly added to the bottom line of the company. From VMware add-ons, to database connectors, to manufacturing and internet of things, to event generators that simulate events from those systems.
- Commercial Product Splunk DB Connect allows Splunk to pull data from relational databases (https://splunkbase.splunk.com/app/2686/) and vice verso. With more than 50 thousand downloads from enterprise customers, it is probably the single most valuable app at Splunk.
- Business Analytics Design and Implementation.
- IoT Manufacturing SCADA dashboard and KPI implementation.
- Blogs I wrote for Splunk in POC projects are at https://www.splunk.com/blog/author/btsav.html

#### **BEFORE 2012, CANADA/US WORK PROFILES**

Senior Consultant, dnb.com, D&B, California Architect Consultant, nixle.com, California Senior Consultant, overstock.com, Utah Project Manager, JPMorganChase, New York/Texas Consulting, Deutsche Bank, New York Consulting, IBM, New York/Canada



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# **EDUCATION**

## MASTER OF CYBERSECURITY - CS • 2017 • NEW YORK UNIVERSITY

Java Big Data Implementation, Hadoop, Spark, Spark Stream, Cassandra, Kafka, Financial Data Streaming and Scala Avro conversion with Kafka.

R Machine Learning, H2O engine, SVM, k-means, ANN Deep Learning, Text Mining, Topic Modeling and deep learning.

Platforms includes Cloudera, standalone and cluster with VMs.

https://github.com/billtsay/bigdataclass

https://github.com/billtsay/kafka-avro (Scala Project)

https://github.com/billtsay/final-exam

https://github.com/billtsay/class-project

https://github.com/billtsay/project-1

https://github.com/billtsay/project-2

https://github.com/billtsay/win-demo-opcua (Python Project)





