

# SHUBO ZHANG

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## SUMMARY OF QUALIFICATIONS

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- About 10 years of hands-on experience in architecting, designing, and building enterprise applications from concept to delivery - Microservices Web Applications, Cloud-based ETL, and Big Data Analytical Reports.
- 3 years of experience building and operating efficient, reliable, scalable, and cost effective solutions in AWS.
- Strong experience in Agile software development methodology: requirements gathering, story analysis, architecture design, technical resolution, development, integration and testing, deployment, and maintenance.
- Expertise in developing RESTful API and building applications using Spring modules, Hibernate, and JAX-RS.
- Strong knowledge in RDBMS databases such as Oracle and MS SQL Server. Experienced in NoSQL database likes MongoDB and Cassandra.
- Proficient using CI/CD and SDLC manage tools: Docker, Artifactory, Github, Jenkins, JIRA, Confluence, Git, SVN, Maven, Gradle, and Selenium that promote collaboration, productivity, and quality.
- Experienced in web UI development using React, Redux, Webpack, and Jest.
- Passion and dedication to build the finest yet simplest software - good enough is never enough!
- Certifications: AWS Certified Developer-Associate / Oracle Certified Java Programmer / MongoDB for Java Developers

## PROFESSIONAL EXPERIENCE

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### Nielsen

*Software Engineer*

Columbia, MD

10/18 - Present

- Designed and developed AtPlan ML Prediction and Online Sampling Process projects in AWS Cloud with fully automatically CI/CD and end-to-end workflow from scratch.
- Used Terraform build infrastructure to provision and manage all services in AWS.
- Re-engineered Nielsen Marketing Cloud UI application via React, Redux, and Jest.
- Implemented both client and server side encryption on DynamoDB to protect PII data and back-filled millions of items.

### T. Rowe Price

*Senior Consultant Developer*

Baltimore, MD

10/17 - 10/18

- Developed and maintained quant tool apps: back-end with Spring boot, Redis, Spring Data JPA, Swagger 2, and Oracle; front-end UI with React, Redux, and Jest.
- Developed ETL process for Barclays POINT data using Python.
- Worked on Investment Data Warehouse cut-over project: db objects analysis, remediation, and performance tuning.
- Used CI/CD pipeline tools(Docker / Jenkins / Terraform ) to deploy applications to AWS environment.

### Financial Industry Regulatory Authority (FINRA)

*Senior Consultant Developer*

Rockville, MD

10/16 - 10/17

- Worked on market surveillance systems which analyze more than 37 billion market events every day.
- Designed and implemented restful API for SONAR surveillance system, including url design, exception handling, filters and interceptors.
- Developed a JSON schema validator module to validate CRUD operations against a break(fraud and inside trading events) search system ( Elastic Search Engine).

- Implemented new features and fixed bugs for MarketSpace application which is designed for business users to analyze trade exceptions and alerts.
- Developed treasury surveillance patterns which run on a cloud based Hadoop framework (S3 / EMR / HQL).

### **Multiplan**

*Software Engineering III*

Rockville, MD  
08/15 - 10/16

- Completed five projects (Claims Reset, Provider Alias, Secondary Closure, Claims Processing Portal, and Claims Processing Dashboard) in Agile development methodology.
- Worked as a project coordinator role on several re-engineered applications: communicating with clients and business users, proposing development plan, and working with developers from multiple groups.
- Improved Maven project structure and created standards and best practices in Confluence, like Git workflow, unit testing, integration testing, and store procedure template.
- Implemented the data access layer using Spring Data JPA and Querydsl predicates which have pagination support and dynamic query execution features.
- Used Spring Security and SAML token to achieve the Single sign-on and Single log-out features.
- Implemented the logic controller layer using Spring MVC and en-queued the requests to ActiveMQ JMS.
- Used Spring MVC Test Framework, junit, and Mockito to conduct unit and integration testings.
- Developed big data platform POC to provide near real-time KPIs, ad-hoc reports, and alerts to Claims Processing Dashboard Application.

### **SCOR Global Life Americas Reinsurance Company**

*Software Engineering*

Charlotte, NC  
06/14 - 08/15

- Developed new features for VELOGICA reinsurance underwriting system which provides the customer with the following: rapid request and response times, analysis of third-party vendor data, detailed underwriting rule processing, and descriptive responses.
- Developed request processor mechanism which is used to receive applications from clients via web service (SOAP), persist applications, and submit applications to HornetQ as JMS producer.
- Developed core-server that picks up applications as JMS consumer and implements underwriting rules against them, including validating data, evaluating data, and making a decision.
- Developed class diagrams, database tables, and mapping between relational database tables and object oriented java objects using Hibernate.
- Implemented Data Ordering Service (DOS) which is responsible for fetching data from third-party vendors, like MIB, ADR, ExamOne, FirstData, and intelliscript, via SOAP and RESTful web services and using JAXB and Jackson for marshalling / unmarshalling.

### **Zaag Technology**

*Software Engineering*

China  
09/10 - 06/14

- Developed a report manager system which facilitates business user to generate periodic reports, upload data to database through spreadsheet, and retrieve information from database in a GUI.
- Implemented the system via MVC architecture using Spring MVC, Spring DI, AOP, JAXB for marshall /unmarshall XML data, and using JPA and hibernate annotation for data mapping.

## **EDUCATION**

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Ph.D. in Electrical Engineering, Stevens Institute of Technology, Hoboken, NJ

M.E. in Electrical Engineering, Stevens Institute of Technology, Hoboken, NJ

B.E. in Automatic Control, Beijing Institute of Technology, Beijing, China