Tian Lan

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EDUCATION

Texas A&M University — College Station, TX
Master of Science in Computer Science, GPA: 3.8/4.0 — *Aug. 2013 – Dec. 2015*

Tianjin University — Tianjin, China
Bachelor of Engineering in Software Engineering, GPA: 8.5/10 — *Sept. 2009 – July. 2013*

EXPERIENCE

Amazon — Austin, TX
Software Development Engineer — *Jan 2016 - Present*

Responsible for design and development of highly scalable and secure data pipeline that powers Amazons global fulfillment network.

- **Gateway**: Designed and implemented a highly available and scalable API Gateway architecture that serves as the single point of entry for customers in AWS regions and edge locations. Used by Amazons fulfillment personnel planning software in NA, EU, JP and CN. The service provides reverse proxy to upstream microservices, load balancing with health check and failover, static hosting, web acceleration, log aggregation and SSL termination.
- **Canary System**: Designed and developed a configurable asynchronous job scheduling system, which runs 24/7 executing highly concurrent SLA monitoring workflows for our eco-system worldwide. The system collects, reports and alarms on anomalies for availability, latency and quality metrics of 15 internal micro services.
- **Authentication Service**: Developed a higly available and responsive RESTful service with JAX-RS and Jersey. The service authenticates Amazon users/services by generating JWTs based on internal user identity and metadata stored in DynamoDB & S3. Employed Guava Cache to reduce network calls.
- **KPI ETL System**: Developed an ETL system that publishes realtime streaming raw data to Redshift via Kinesis Firehose and S3. Implemented scheduled service for KPI metrics aggregation and PDF report generation.
- **Web UI**: Developed customer facing web UI with React & Redux for worldwide customers. Developed features encompassing data discovery, data visualization, metadata editing and access right management.
- **BI Integration**: Developed the Tableau Web Data Connector using React, Redux/Saga and Webpack. Designed and implemented OData Service and JDBC/ODBC driver to support wider range of BI tools.
- **SQS Processor**: Developed a multi-threaded processing service to convert SQS messages to transactional updates to the system with proper retry & error handling strategies.

Texas A&M University — College Station, TX
Software Developer — *Sept 2013 - Dec 2015*

- **Remote therapy system**: Led a team of 3 developers. Designed and implemented a highly available and stable remote therapy system using MEAN stack - frontend with AngularJS & Grunt; backend with NodeJS, Express & MongoDB. Delivered native Android application for mobile users.
- **Health Ninja**: Designed and developed a 3D biofeedback application with Unity3D, Blender & Android that elevates users' self-regulation skills with adaptive breath training. The app reads real-time breathing data wirelessly from physiological sensor and dynamically adapts game scenarios with ML trained algorithms. Coordinated with teams in U.K. and Australia.
- **Flappy Voice**: Developed an interactive voice controlled game with LibGDX.

Standard Chartered Bank — Tianjin, China
Software Development Intern — *Summer 2012*

- **Bill Management**: Developed the bill management subsystem for Standard Chartered Bank. Implemented with J2EE stack (Spring, Struts and Hibernate & Oracle DB).

PROGRAMMING SKILLS

- **Languages**: **Java**, **JavaScript**, Python, Ruby, C#, HTML5/CSS3
- **Frameworks**: Spring, React/Redux, Guice/Guava, JUnit/Hamcrest, Angular, Ionic, Django, Unity3D
- **Tools**: AWS (S3, DynamoDB, SQS, Kinesis, Redshift), NGINX, Kafka/ZooKeeper