

# FRANK J. YANG

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## EXPERIENCE

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### International Business Machine (IBM), Austin, TX

*DevOps Engineer*

January 2020 - Present

- Designed the microservice orchestration based on IBM Open Liberty (OL) and Apache Kafka, which includes the implementation of a pipeline coordinator that listens to cognitive events and defines its sequence to be processed
- Improved the GitHub bot that generates status updates for the personal builds on Rational Team Concert (RTC), and created the Ansible script that relays an interactive notification from GitHub to Slack using Slack APIs
- Built over 100 internal binaries and runtime dependencies with buildable source in the IBM Artifactory and GitHub repository so that IBM OL became independent of open-source software repositories (Maven Central)
- Optimized the build sequence that launches Factory Accept Tests (FATs) child builds earlier, reducing build time by over 15% from launching z/OS and Installation Manager (IM) FATs immediately after z/OS and IM packaging complete
- Invented a bash script that automatically detects the last committed traditional WebSphere Application Service (tWAS) docker build in the directory, allowing IBM to consistently build the latest image on a regular basis

*Software Developer Co-op*

May 2019 - August 2019

- Configured the IBM OL deployment on OpenID Foundation, allowing IBM to qualify for its industry-standard
- Updated the IBM OL social login feature and migrated the product from LinkedIn's v1 APIs to v2 REST APIs

*WebSphere Application Security Developer Intern*

May 2018 - August 2018

- Incorporated an automatic certificate management environment (ACME4j) protocol on the global certificate authority (Letsencrypt) to support IBM WebSphere Liberty service with a signed certificate in secure socket layer encryption

*Software Developer Undergraduate Intern*

June 2017 - August 2017

- Created a tutorial that demonstrated how to configure security assertion markup language (SAML) identity providers and other single sign-on technologies, including open authorization (OAuth) and OpenID Connect
- Integrated an open-source SAML 2.0 federation software (Shibboleth) with multiple IBM WebSphere Liberty service providers, and configured a lightweight directory access protocol (Apache Directory) to store user information

### FunGoGo Travel Agent, Taipei, Taiwan

*Summer Intern*

June 2016 - July 2016

- Programmed a web crawler that recursively manipulated HTML elements of given seeds in a text file, which extracted millions of weather data and outputted information to the database using document object model (DOM) traversal

## PROJECTS

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### Concentrix Interaction Tuning Tool, Richardson, TX

*Back-end Developer*

January 2020 - May 2020

- Invented bidirectional long short-term memory (bi-LSTM) and multilayer perceptron (MLP) models which processed 50,000+ recorded customer inputs and generated intents of the customers' sentences with an accuracy of 99%+
- Launched a web application using the combination of Vue as front-end client, Node + Express for back-end engine, and PostgreSQL as user information database

### Association of Computing Machinery (ACM) Home Security System, Richardson, TX

*Front-end Engineer, Scrum Master*

September 2016 - May 2017

- Designed automated smart door lock using Raspberry Pi 3 that periodically scanned mac addresses of devices connected to local Wi-Fi, and unlocked the door using servomotor if the user's identity exists in the database
- Received overall first place award in ACM-Project competition and sponsorship from Raytheon

## SKILLS

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**Languages:** Java, C++, C, Python, Bash, JavaScript, HTML, CSS, R, Racket, Perl, Haskell, Assembly

**Tools/Frameworks:** AWS, Docker, Kubernetes, Ansible, Apache Kafka, Spring, ReactJS, Vue, TensorFlow, Flask, MySQL

## EDUCATION

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**The University of Texas at Dallas** - Honors in Bachelor of Computer Science

August 2016 - May 2020

- Academic Excellence Scholarship | Intercollegiate Men's Volleyball