Boyue (Olivia) Zheng

📱 (404) 200 0774 • ✉ zby@gatech.edu • **in** boyue-zheng

Objective: Seeking a **Software Development Engineer Full-time** position

Education

Georgia Institute of Technology   Atlanta, GA

M.S. in Computational Science & Engineering, GPA 3.85/4.0   *Jan. 2020 – May 2021 (Expected)*

- Teaching Assistant of Game AI: Designed projects and exams using Python and Java
- Coursework: Algorithm, Database, Big Data Systems & Analytics, Machine Learning, Information Security

Skills

Programming: Java, Python, JavaScript, SQL, HTML/CSS, Go, C/C++, Scala

Database: MySQL, MongoDB, Redis   **AWS**: S3, EC2, CloudWatch, Lambda, DynamoDB

Big Data: MapReduce, Spark, Kafka   **Frameworks**: Spring Boot, Flask, React, Node.js

Work Experience

Application Development Engineer Intern, ADP   Atlanta, GA

Authentication and Identity Management DevOps team   *Summer 2020*

- Created visualization **Splunk** dashboards with Splunk search processing language to continuously monitor and send alerts for 100+ Apps' authentication-related metrics at both infrastructure and App levels
- Automated forwarding log data of Apache HTTP servers to Splunk using **Ansible**
- Implemented REST API with **API Gateway** and created AWS **Lambda function** with Python to manage **EC2** instances, authenticated by **Cognito User Pools**
- Built **Jenkins** CI/CD pipeline of Authentication Gateway with **Bitbucket**, **Docker** and **Ansible** to apply code and configuration changes on Apache Servers

Project Experience

Mutual Fund Transaction Online System - Web App

- Developed a web app based on Spring MVC to support fund transactions and integrated New York Times API to provide recent news about selected funds
- Built relational database with MySQL and utilized Hibernate as ORM. Implemented security workflow for different roles and privileges via in-memory authentication provided by Spring Security
- Developed Apache FreeMarker template based front-end with JS and Bootstrap4 to provide interactive web pages

Help for Community in COVID-19 - Web App

- Developed a web app to enable local businesses to sign up for help, community residents to check updates and donate
- Built back-end by Node.js and Express framework to handle HTTP requests. Built NoSQL database using MongoDB to save user/donation information and utilized Mongoose as ODM
- Designed front-end by React. Integrated Redux Form to gather target amounts and reasons submission. Integrated Stripe API for donation payment
- Implemented authentication flows with Passport.js and Google OAuth

Criminal Rate Prediction of Chicago - Data Visualization

- Preprocessed 7 Million Chicago criminal data (with category, time, location and weather) using Pandas
- Trained the prediction model for criminal rate using Random Forest Algorithm in Spark MLlib on AWS EMR and achieved accuracy of 0.65 R^2
- Visualized the real-time prediction results of crime categories using D3 and Google Map API