

Mengchen Gao

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SKILLS

Languages Java 8, JavaScript, SQL, HTML/CSS

Backend Spring Cloud, Spring Boot, Hibernate, NodeJS, ExpressJS, RESTful, MySQL, MongoDB, Kafka, Elasticsearch, Redis

Cloud Related (AWS) CI/CD (CircleCI, CodePipeline), IaC (CloudFormation), Serverless (Lambda, API Gateway, DynamoDB), Docker (ECS, ECR), AuthN & AuthZ (IAM, Cognito), Event-Driven (SQS, SNS, EventBridge)

Frontend React, SCSS, jQuery, AJAX, PWAs

Others Micro Services, Shell, Git, Maven, JMeter, JSON, YAML, XML, NPM, Packer, AWS CLI, Agile

EDUCATION

Northeastern University - BOSTON, MA

Expected December 2021

Master of Science - Information Systems GPA: 3.69/4.00

- Relevant Courses: Cloud Computing, Data Structure & Algorithm, Object-Oriented Design, QA

Beijing University of Technology - BEIJING, CHN

Master of Science - Software Engineering GPA: 3.84/4.00

- Awards: National Scholarship of Graduate Students

CERTIFICATIONS

 AWS Certified Developer - Associate (DVA) July 2020 - July 2023

PROFESSIONAL EXPERIENCES

CryptoAlgoWheel (app.cryptoalgowheel.com/coin-monitor)

MA, US Dec 2019 - Feb 2020

- Software Engineer (Volunteer)

- Built data processing module of a cryptocurrency market data API product.
- Implemented ETL to parse crypto data from Kafka and load into InfluxDB & Elasticsearch by categories.
- Dockerized ETL and created pipeline on AWS by using CodePipeline, ECR.

Electrical Contract Preservation System

BJ, CHN Dec 2017 - Jun 2018

- Leader of the research program team at lab in BJUT

- Targeted to solve the un-trust problems of P2P platforms' contracts and to protect the time sensitive intellectual properties by cooperating with notarial institution who notarizes the figure print of contracts.
- Provided RESTful API to interact with frontend request by using Spring Boot and Hibernate.
- Improved query operation performance by using Redis.
- Built RBAC with Spring Security and customized authZ rules, encrypted sensitive messages using BCrypt.
- Awards - National Bronze Award at China Students' Entrepreneurship.
- Patent - *Data Fingerprint Extraction Method and System for Centralized Electronic Data Preservation System*, CN201610624895.5

INDIVIDUAL EXPERIENCES

COVID Safe Distance Alert App

Jun 2020 - Aug 2020

- ExpressJS, MongoDB, React, PWAs, Restful APIs

- Implemented a safe distance alert web app with anonymous data sharing and alerting function.
- Improved the app to meet PWA standards by adding service worker, HTTPS support and install ability.
- Built RESTful API by using ExpressJS and integrated with React Axios calls and service worker calls.
- Integrated MongoDB for storing normal data and MongoDB Atlas for storing specific Geo Spatial data.
- Developed Admin Dashboard using React Router and Material UI.

Cloud based Billing Management Web Application

- Automation with CI/CD & IaC, AWS Services, Spring Boot, Restful APIs

Feb 2020 - Apr 2020

- Designed and implemented a set of Restful API based on Spring boot, Hibernate and MySQL, which were built on AWS EC2 and RDS.
- Implemented billing expiration alerting feature with event-driven architecture by using Lambda functions triggered by SQS & SNS and integrated with DynamoDB and SES.
- Developed authentication / authorization features based on Cognito user pool / identity pool.
- Set up automation features with CI/CD pipeline based on GitHub, CircleCI and AWS CodeDeploy, and with IaC based on AWS CloudFormation and AWS CLI.
- Generated log messages at different levels by using log4j and collected application metrics by using StatsD, published them to AWS CloudWatch for logs centralizing and metrics analyzing.