

Ivan Chowdhury

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Skills

Languages: Java, Kotlin, Python, JavaScript/HTML/CSS, TypeScript, SQL

Technologies: Git, Docker, Spring Boot, React, Redux, PostgreSQL, MySQL, Oracle, Kubernetes, Maven

Other: Agile Development, REST APIs, Unit Testing, Continuous Integration & Deployment (CI/CD)

Work Experience

Full Stack Software Engineer JPMorgan Chase Sep 2021 — Present

- Developed microservices for digitalizing American depository receipt data and regulating contracts, payments, contributions and fees for clients and custodians, using Java, Kotlin, Javascript, TypeScript, SQL, React, and Spring Boot
- Overhauled entire end-to-end system for creating and modifying digital contracts—writing new API calls, UI components, and SQL queries—to introduce major features requested by end users
- Managed large-scale test suite upgrades by implementing hundreds of unit tests with JUnit, Mockito, and Jest, and incorporating continuous code quality with Sonarqube, resulting in a 60% increase in app-wide code coverage
- Took ownership of major releases by performing deployments with a CI/CD pipeline and Spinnaker, and leading database refreshes and dry runs while communicating with other teams
- Experimented with quantum natural language processing as a means to understand sentences in contract engagement letters, using a syntax-based classification model built in Python
- Remediated static and open-source software vulnerabilities, reducing security issues in new releases by 70%
- Resolved production issues while prioritizing incident response, using AWS, Kubernetes, Datadog and Splunk
- Integrated agile methodologies into teamwide workflow, with regular sprints, story point estimations, and retrospectives

Projects

itsMe: Attachable Smart Lock git.io/JRHkt

- Led a team of 4 to invent a low-cost smart lock that installs seamlessly by latching onto doors, allowing tenants, apartment owners, and moving homeowners to reuse it frequently without renovation costs
- Designed an Android app in Java for remote control and monitoring of the smart lock
- Programmed a Raspberry Pi in Python for Bluetooth Low Energy request handling and high-precision servo rotation
- Published an open-source design that could be customized, 3D-printed, and assembled at 30% of the cost of industry smart locks, and was evaluated positively by over 100 undergraduates, faculty, and visitors

NutriDiary: Adaptive Nutrition Tracker git.io/JB1YV

- Architected a full-stack web application that logs nutritional data, and uses it to compute personalized calorie and protein intake recommendations that gain accuracy over time, helping users meet their weight loss or muscle gain goals
- Implemented a REST API with Java and Spring Boot, to interface with a PostgreSQL database

Movie Review Sentiment Analyzer git.io/JRHIt

- Built a recurrent neural network (RNN) in Python that performs sentiment analysis on movie reviews; users may input a movie review, and the neural network will predict whether it has a positive or negative sentiment
- Applied TensorFlow and Keras to train the RNN on a dataset of 50,000 IMDb movie reviews, achieving a prediction accuracy rate of 93.54%

MATCH: Social Networking Platform git.io/JRHIE

- Collaborated with a team of 4 to develop a full-stack web application for a social network that matches users to local friends with common interests, using JavaScript, Java, and a MySQL database

Education

The Cooper Union for the Advancement of Science and Art, New York, NY Sep 2016 — May 2020

Bachelor of Engineering in Electrical Engineering, specialization in Computer Engineering