

Tianyang (Terry) Ren

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📍 Cambridge, MA

Experiences

Software Engineer

InterSystems Corporation

📅 Jul 2021 – Current

📍 Cambridge, MA

- Backend development in **Java** and object oriented language optimized for InterSystems database platform (**ObjectScript**).
- Collaborate with a small team to develop automation framework to handle test environment and execution to serve the Quality Department.
- Automate database high availability (node replication, fail-over, node connection, data recovery) test, stress test, and database integrity check.

Software Engineer Intern

Enel Group - Enel X

📅 Sept 2020 – Dec 2020

📍 Boston (Remote), USA

- Enhanced and developed client tier and middle tier functionality in Node.js (**JavaScript**), React, Webpack, and AWS (Lambdas, S3, and Cloudfront).
- Built internal tools with graphical user interface to help the team navigate through huge amounts of data generated by power plants and clients.
- Coordinated with QA to resolve defects. Authored, maintained tech specs.

Software Engineer Intern

ToothPrint, sponsored by Massachusetts Life Sciences Center

📅 Jun 2020 – Sept 2020

📍 Boston (Remote), USA

- Developed a React Native healthcare application that helps parents to select baby products scientifically.
- Reduced response time of backend Django **Python** API from 4.2s to 2.4s by using Cache and Multi-threading.
- Improved communication encryption on user side and server side to help protect sensitive patient data and meeting HIPAA compliance.

Projects

Neer

📅 Fall 2019

- A social platform for location-based image post and search, written in **Go**.
- Implemented front-end with React, integrated Elasticsearch Geo-index feature to handle the location-based search.
- Designed token-based authentication (JWTs) to protect service endpoints.

J-Rails

📅 Fall 2019

- A MVC web framework written in **Java** based on the idea of Ruby on Rails.
- Designed with annotation to enhance the model creation experience, used reflection to invoke methods to create HTML elements.

Multi-threaded Regex Matcher

📅 Fall 2019

- A parallel regex matcher that runs faster than the **Java** build-in library.
- Matcher converts regex to NFA to simulate result and convert a portion of NFA to DFA at runtime for better memory usage.

Education

M.S. Computer Science

Tufts University - MA, United States

📅 Sept 2019 – May 2021

B.E. Mechanical Engineering

Hangzhou Dianzi University - China

📅 Sept 2015 – Jun 2019

Skills

Languages

Java Golang Python
modern JavaScript TypeScript
C++ HTML CSS

Technologies

Git Shell Script HTTP
NodeJS React React Native
Angular2 MySQL Docker
Kubernetes AWS

Courseworks

Data Structures
Operating Systems
Cloud Computing
Database Systems
Software Engineering
Machine Learning
Software Development
Introduction to Algorithms
Design & Analysis of Algorithms
Discrete Mathematics
Theory of Computation
Principles of Microcomputer
Single Chip Computer Technology