Shuhao (Henry) Sun

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Skills

Languages: Java, SQL, C#, Python, JavaScript, C/C++

Technologies: Spring Framework, AWS/GCP, Kafka, Spark, PostgreSQL, AngularJS

Tools: Git, Perforce, Unix, IntelliJ, Confluence/Jira

Work Experience

Narvar San Francisco, California

Software Engineering Intern

January - April 2019

- Designed, developed and launched a service in Java that gets the time zone for 28M combinations of city/state/country, increasing proportion of carrier tracking events with correct UTC timestamp to 94%.
- Analyzed hourly datasets of 30M events with Python and Spark to investigate quality of lookup parameters.
- Optimized throughput of the time zone lookup library, benchmarked to support 100K+ QPS, by creating a world cities database preprocessor that removes the need for additional EC2 instances or external API calls.
- Updated core platform microservices in Java/Spring servicing millions of API requests daily.
- Created CI pipelines with Jenkins and CircleCI to verify build quality and handle DevOps tasks for deployment.

Oracle NetSuite Kitchener, Ontario

Software Developer Intern

May - August 2018

- Wrote and tested features for a new web module built on a monolithic platform with a 20-year-old codebase.
- Developed inside a Linux VM environment, focusing on test-driven development with Java, SQL and Perforce.
- Contributed 20-25% towards sprint velocity, prioritizing clean coding principles from Uncle Bob workshops.
- Maintained 2-to-6-hour sanity/smoke/coverage TeamCity builds by fixing broken unit and integration tests.

Ultimate Software Toronto, Ontario

Software Engineering Intern

September - December 2017

- Developed features and bug-fixes for a web app using Angular 1.5, HTML/CSS/JS, Java/Spring and MariaDB.
- Coordinated meetings with Mobile, QA, and BA team members to discuss ambiguities and potential solutions.
- Created and delivered a Lunch & Learn presentation on MochaJS to an audience of 23 team members.

Ultimate Software Toronto, Ontario

Software Test Engineering Intern

January - April 2017

- Wrote API tests in Postman, database regression tests with Liquibase, and C# automation in Visual Studio.
- Developed a stored procedure in SQL that finds diffs in tables to verify successful integration test teardowns.

Personal Projects

Renju 3D (Available in the Play Store)

- Published a Unity3D board game played on a 15x15 Go board, optimized for mobile devices; built with C#.
- Efficiently enforced Renju rules prohibiting double 3's, double 4's and 6-in-a-row's along with its edge cases.
- Leveraged NoSQL for <u>online multiplayer</u> by integrating the Json.NET C# library with Firebase REST APIs.

Raspberry Pi 3 Smart Mirror

- Built a motion-enabled smart mirror, configurable through VPN, displaying the weather, time and schedule.
- Contributed to Michael Teeuw's open source MagicMirror² repo, identifying and merging a <u>bug-fix</u> to master.

Education

University of Waterloo Waterloo Waterloo

Candidate for B.A.Sc. in Computer Engineering

September 2015 – May 2020