# **Thummim Jung**

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#### Education

Brigham Young University / Provo, UT

**Graduation Date**: 12/2023

Major: Bachelor of Science, Computer Science

**Relevant Coursework**: Computer Systems, Data Structures, Discrete Structure, Data Science, Algorithm Design & Analysis, Computational Theory, Adv. Software Engineering, Artificial Intelligence, Blockchain Technologies, Test-

Verification-and-Analysis. Machine Learning

### **Technical Skills**

**Programming Skills**: Java (5yrs), C++ (3yrs), Python (3yrs), C (1yr), JavaScript, SQL

**Operating System**: Windows, Linux, Unix, OSX, z/OS, Android

**Software and Technologies**: Git, Jenkins, ClearCase, JUnit, Docker, PyTorch, Tensorflow, dplyr, ggplot2,

Dafny, R, GeoJSON, QGIS, Shell Scripting, MongoDB, D3.js, React, Node.js

## **Experience**

Software Engineer Intern, May 2021– December 2021

IBM - Q Replication in Database and AI / San Jose, CA

- Participated in the new release of IBM Replication and attended weekly scrum meetings with IBM team in China
- Developed automation scripts using Jenkins for CI/CD pipeline, improving the efficiency of software testing
- Fixed over 30 Perl test cases on Linux, Unix, Windows, and z/OS improving data replication testing for clients

Web Developer, April 2022 – January 2024

BYU Studies - Brigham Young University

- Developed a new website leveraging technologies such as React, AWS Lambda, API Gateway, S3, RDS
- Implemented website APIs using AWS Gateway, ensuring seamless integration between frontend and backend
- Authored documentation on website development workflows and maintenance procedures, utilizing GitHub

## **Projects**

## **Washington Covid-19 Case Map**

- Implemented interactive mapping using MapboxGL JS library to visualize COVID-19 data
- Dynamically loaded geojson data and rendered choropleth map with legend indicating case density ranges

#### **Family Tree Android Application**

- Engineered a full-stack Android application, integrating both client-side and Java server components
- Designed and executed comprehensive unit tests to validate functionalities and ensure reliability
- Crafted intuitive UI/UX elements and enhanced application usability and user experience

#### **Implement Constant Propagation in Compiler Design using Java**

- Implemented constant folding for a subset of Java and ensuring functional correctness through black-box testing
- Developed a constant propagation class to construct the control flow graph and perform reaching definitions
- Executed white-box decision coverage testing, utilizing mocks and Jacoco to achieve required coverage metrics