

# Tahmeed Hossain | Software Engineer/ Test Automation Engineer

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## TECHNICAL SKILLS

### Frontend

- ASP.NET
- JavaScript
- ReactJS
- Flutter
- MaterialUI/BootstrapCSS
- GatsbyJS

### Backend

- NodeJS & TypeScriptJS
- PostgreSQL
- PHP & MySQL
- GraphQL
- Firebase
- Java/C#

### Software Dev. Environments

- Selenium/jaCoCo/WebDriver
- Docker & Digital Ocean
- R, Bash, and Excel
- Visual Studio & Anaconda
- JEST & JenkinsCI
- GitHub/BitBucket

## TECHNICAL WORK EXPERIENCE

### Global Relay – Software Engineer in Test (Automation)

Jan 2022 – Present

- Built automated E2E tests and mock tests with **WebdriverIO** in **Selenium** on various testing environments
- Implemented mock service to isolate from other teams and return **mock requests/responses**
- Built Page-Object-Models to allow for testing new features and frontend components
- Ran regression and smoke tests for deployment on product releases going out to over 100k users
- Bug reporting and verification and triaging nightly automation runs in **JenkinsCI**

### Onevest – Software Engineer

Sep 2021 – December 2021

- Moved Test reporting system on AWS, and created automated test runs with **GitHub Actions**
- Designed test reporting tool to generate **Allure reports** with greater test visibility and precise root cause analysis
- Built **API token** to allow enterprises to set entitlements, permissions and roles with **GraphQL Queries and Mutations**
- Implemented whiteList IP address security feature that would enable enterprise to select specific users to make API calls.

### Alstar Brokerage Solutions – FullStack Engineer (Part-time)

Aug 2021 – December 2021

- Completely redesigned and developed components for frontend in **HTML, javascript and BootstrapCSS**
- Built backend services for multiple features in **C#** and built different user access modes menus
- Reduced the average number of clicks by ~50%, by creating frontend components for more intuitive navigation
- Deployed release of MVP to over 20 different brokerage and gathered high level business requirements
- Wrote User-defined stored procedures (**SQL Queries**) and created/managed relational tables on **MSSQL**

### OMMATY – Backend Software Engineer (Core-Developer)

Jan 2021 – September 2021

- Developing an IOS/Android Application using **Flutter, NodeJS, and TypescriptJS**
- Built **CRUD** Services for multiple features and data transfer systems from client to server-side **REST APIs**
- Wrote test scripts and unit tests for data layer functions to meet project requirements using **JEST**
- Implement backend functions of Offer Services by writing **SQL Queries** and created entities in **Typescript.js**
- Collaborated across cross-functional teams to deploy data pipelines in development and production

### Agronome – Backend Developer/DevOps Engineer

May 2020 – Aug 2020

- Built completely functional user-driven system with **PostgreSQL** database, **NodeJS** backend, and **ReactJS** frontend
- Implemented elastic search from parsing csv files and generated crop data based on specific user inputs
- Built data pipelines and development environments using **Docker** containers and deployment using **Digital Ocean** droplets
- Used Google Maps API to store farm location and area with exact coordinates and created all data storage functionality for website

## TECHNICAL PROJECTS

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### BC Cancer Research Medical Imaging Informatics Filtration

Jan 2020

- Analyzed different datasets using **Scipy/Numpy** and parsed pixel image data from CT scans, MRIs, and Mammograms to translate into ROI images and detect variations in pixel data
  - Using **OpenCV** to process imaging and probe raw image data for enhanced analysis and visualization
- Automate data filtration processes and assessment of statistical modeling using **Python** scripts and **Scikit-Image**

### DESIGN TEAM:

#### Study Room Booking App

Jan 2020 – Sep 2020

- Built a High-Fidelity prototype on Android Studio using **Java** to create an efficient booking system.
- Used **Greedy Algorithm** to implement scheduling and tracking of room bookings
- Built Seamless User Interface to allows users to book rooms with minimal inputs and store data on **Google Firebase**

### ACADEMIC:

#### Wall Street Data Scraper

Jan 2021

- Implemented various sorting algorithms to find the top three mentioned stocks in the largest trading forum using **Python**
- Used Reddit and **Yahoo Finance API** to generate daily datasets to parse stock tickers and ticker values
- Found 10% increase in top three stocks found by **heapMax algorithm** in  $O(n \log n)$
- Designed **Python scripts** to create JSON files of daily data statistics and track trends over time

#### Chatbot Model (ML/Neural Networks)

Jan 2020

- Constructed a complex neural network using stochastic gradient descent and principal component analysis using python libraries such as **Tensorflow** and **Tflearn**
- Created custom tokenized datasets sorted by natural language processing patterns (**nltk**) stored into dictionary arrays and converted into **Numpy** arrays to train neural networks on user input patterns.
- Tested and implemented different activation functions on neural network such as sigmoid, SoftMax and linear functions to optimized data accuracy by mapping response values
- Implemented a UI to have user inputs taken from messenger system and give dynamic feedback and generate outputs

### PERSONAL:

#### Portfolio Website

Aug 2019

- Created Personal Portfolio website using **React.js** and **Gatsby.js** to create fast-responsive single page static webpage
- Implemented different widgets within website to hold icons and datasets for sections of the webpage
- Continuous development and deployment of software project through **Github/DigitalOcean** droplet and on **Netlify** server

## EDUCATION

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### University of British Columbia – B.Sc. in Computer Science

Sep 2016 – Apr 2021

- **Noteworthy courses completed:** Data Structures and Algorithms, Networking, Analysis of Software Engineering Projects, Introduction to Machine Learning, Operating Systems, System Software Engineering, Introduction to Medical Imaging and Imaging Informatics

## AWARDS

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#### Dean's List Designation

2020-2021

#### UBC Hackathon 3<sup>rd</sup> Place

Jan 2020