# **HUSSAIN MUSTHAQ**

LinkedIn | Github

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Endlessly curious full stack engineer, eager to learn new technologies and apply a wide range of experiences to solving hard, real world challenges. Exposed to software development, neural networks, visualizing data, natural language processing, machine learning. I am willing to dive deep into the task at hand and can be counted on to deliver outstanding results.

#### **EDUCATION**

## University of North Carolina at Charlotte: Charlotte, NC

May 2021

Master of Science in Computer Science

GPA: 3.9

Relevant Coursework: Database Systems · Computer Graphics · Virutal and Augmented Reality · Intelligent Systems ·

Software System Design and Implementation · Computer Communications and Networks · Machine Learning

## SRM Institute of Science and Technology: Chennai, India

May 2018

Bachelor of Technology in Computer Science

#### **SKILLS**

PROGRAMMING & SCRIPTING: JavaScript, Python, Java, C++, TypeScript, Shell Scripting, GML, C#

DATABASE: MySQL, Oracle SQL, PostgreSQL, NoSQL- MongoDB and Firebase Real-time Database

TECHNOLOGIES & TOOLS: React (including Context API), Node.js, Spring Boot, Unity, WebGL, D3, Firebase, Bootstrap,

jQuery, Scikit-Learn, Git, Gitlab, AWS RDS, Django, Socket.IO, HTML5, CSS, Material UI, EC2, Docker, Jira

## **EXPERIENCE**

## **Information Visualization Teaching Assistant**

January 2021 - May 2021

University of North Carolina, Charlotte

- Implemented **Bash Shell scripts** to grade tutorial assignments from Gitlab and reduced manual grading by 90%.
- Hosted static page on Gitlab to help students' projects using HTML5/CSS/JavaScript incorporating Hypothesis annotations.
- Mentored students during office hours for D3.js implementation for data visualization.

## **Computer Graphics Teaching Assistant**

August 2020 – January 2021

University of North Carolina, Charlotte

- Wrote Bash Shell Scripts for grading tutorial assignments. Held office hours and participated in weekly meetings.
- · Assisted in research work and tutored students for WebGL and JavaScript implementation.

## RELEVANT PROJECTS

#### IPL Cricket Dashboard (Github)

May 2021

- Designed an IPL dashboard application using React.js for the frontend and Spring Boot to handle the Rest API endpoints.
- Application supports smooth interaction to view various matches played by the teams over the years with visualization.
- Used Spring Batch to load CSV file onto HSQL database using JPA, Repositories and JPQL.

## Realtime Video Telephony Chat Service (Github)

January 2021

- A realtime video and chat service by configuring peer-to-peer API build on top of WebRTC to support both data and media streams.
- Designed the interface using the Vanilla.js and Material UI components.
- Established a WebSocket for upto 100 client connections using Socket.IO.

Niner's Connect November 2020

- Created a Responsive Web Application prototype that would allow university students to network and share posts as well as vote and comment on their classmates' content (MERN stack with GraphQL and JWT for authentication).
- Implemented wireframes and Unit Testing as part of a Kanban style workflow using Slack.

## 3D Widget Augmented Reality (Github)

December 2019

- Devised a 3D modeling tool intergrating infrared light based stereoscopic camera in Leapmotion sensor in Unity to achieve smooth scaling, transforming and rotating 3D widgets using hands.
- Formulated 3D mechanics for Arcball rotating using quaternions in C#.

#### QA Health Assistant for Covid 19 (Github)

December 2020

- Developed a Chat Bot using Transformer model and trained BERT to consume research papers and tested against SQuAD v2.
- Increased accuracy of the result by 10.4% by tuning hyper parameters using PyTorch.
- Cleaned and trained growing dataset containing over 100,000 papers using Python.

Lights Out (Github) December 2020

• Worked with a team to create a platform-type, puzzle game by building OpenGL Shaders with Game maker language.