# Mustafa Sadriwala

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## TECHNICAL SKILLS

Languages Java, JavaScript, Flow, HTML, CSS/SCSS, Python, GraphQL, C/C++, Bash, MIPS

Softwares React, Git, LaTeX, Android Studio, Strapi, Matlab, MS Office

Frameworks React-Native, Relay, Spring, Next.js

#### **EDUCATION**

# **B.S.** in Computer Science – University of Texas at Dallas

Aug 2017 – May 2021

Collegium V Interdisciplinary Honors, CS^2 Honors Program

Overall GPA: 4.0/4.0

### **WORK EXPERIENCE**

## Facebook, Software Engineering Intern

May – Aug 2020

- Worked as a **Product Engineer** on the Messenger Kids Parent Experience Team to deliver redesigns of legacy screens inside the FB app and bring necessary functionality for parental controls to the FB website.
- Used React Native with Relay and Flow to create a consistent cross-platform user experience.
- Learned **GraphQL** best practices with React to query and mutate data relevant to a child user's account.
- Developed on the FB website with React and GraphQL to create new dialog flows and reporting functionality.
- Ran experimentation for both projects. Helped track growth metrics and create hypotheses for testing.
- Communicated cross-functionally with design, product, and content to align with best engineering practices.
- Wrote project tracking documents to help prioritize and signal needed changes to planned timelines.
- Organized documents and set up relevant environments and variables for team members and an external QA
  group to test and provide feedback on my project. Iterated on given feedback to further improve the product.
- Created modular components, functions and custom **React Hooks** to lay the groundwork for future iterations.
- Triaged legacy code and refactored my own code, when necessary, to align with newer standards.

## **J.P. Morgan & Chase**, Software Engineering Intern

Jun – Aug 2019

- Worked as a **Full-Stack Developer** to deliver an end-to-end **web application** to mock data generation that aligned with new data standards as a customizable **Kafka** producer for internal cloud applications.
- Developed input forms and input validation techniques for customized data generation in **React** front-end.
- Created a modular and reusable middle-end **REST API** in **Java** for scheduled and random data generation.
- Wrote documentation for middle-end API with Swagger to ensure consistent future usage.
- Helped architect endpoints and internal data models to enable an efficient MVC architecture.
- Discussed architectural and design decisions for user workflow and application functionality with teammates.
- Researched and integrated authentication protocols to enable deployment to internal cloud environment.
- Planned out bi-weekly goals and priorities in an agile workflow and engaged in daily stand-ups with the team.

## Plano Intelligence Inc., Front-end Developer

May - Sep 2018

- Created a proof-of-concept Android app for a local AI threat-detection start-up based out of Plano, TX.
- Focused on front-end decision-making, troubleshooting, and development. Coordinated our front-end team to split and prioritize tasks to both meet deadlines and work around external commitments.
- Built, tested, and designed the application with **Android Studio** and **Java**.
- Leveraged **Firebase** and helped architect the schema and data model for a notifications database. Communicated with the back-end team to ensure consistency of data model across platforms.
- Delivered real-time WebSocket connectivity inside the Android app for chat bot messages and notifications.

## Kellermann Foundation, Project Manager

Jan – May 2018

- Supported this non-profit through the Engineering Projects in Community Service (EPICS) program at UTD.
- Advised technicians in Uganda on how to integrate their local database to a newly developed government database framework by analyzing Java and SQL source.
- Wrote and presented a final report on source code analysis and legacy system review.
- Created timelines and initiated weekly virtual meetings with technicians to stay aligned on project goals.

## **Kumon Math and Reading Center**, Tutor/Associate

May 2016 – May 2017

- Tutored students from K-10th grade in Math and English. Graded homework and created specialized lesson plans for each student based on their individual learning speed.
- Managed a busy storefront with 30-45 students and occasional parents.

## RELEVANT PROJECTS

## UTD Comet Marketing, Director of Web Design

Aug 2018 – Present

- Created and maintain Comet Marketing's website (<u>www.utdcometmarketing.com</u>) from scratch with one peer using **React** and **Next.js** for the front-end and **Strapi** and **MongoDB** for the back-end.
- Deployed back-end on Heroku for simple content management and deployed front-end using Vercel.

## AI Pacman Capture The Flag, Academic Project

March – May 2020

- Created a team of goal-based agents in Python to compete in a classroom tournament of capture the flag.
- Won first place in both the pre-final and final tournaments going undefeated both times.
- Implemented a modular, decision-making hierarchy based on the concept of reflex agents.
- Designed heuristics to determine regions of dense points, the best entrances onto the opponent's side, and the best path to a desired location that would maximize points collected.
- Implemented theoretical concepts of Tabu search, utility functions, and condition-action rules.

#### Pet Salon Database, Academic Project

Feb – May 2020

- Designed a database model for a fictional Pet Salon as part of semester-long group project.
- Researched business rules, assumptions on data volume, and potential stakeholder needs.
- Implemented our model in MySQL and made Python and JavaScript scripts to generate test data.
- Developed a front-end using **React** and **Express.js** that could initiate canned transactions, make custom queries and show the current state of all tables in the database.

## TAMUHack '19, Back-end Developer

Feb 2019

- Developed RCPT, a mobile app that used Computer Vision analyze a user's receipts so that they can track and categorize their finances. The app was made as a utility to help college students with budgeting.
- Won Best Financial Hack awarded by Capital One
- Used JavaScript with Node.js to develop sorting algorithms for times and categories. Created secure REST APIs
  for our front-end react-native application to poll for data and financial analytics.
- Designed and implemented a microservices architecture by leveraging REST APIs and Heroku.

## **EXTRACURRICULARS**

**UTD Girls Who Code Logistics Chair:** Helping to establish a local chapter of Girls Who Code College Loops.

**ACM UTD Director of Education:** Coordinated a team of officers to manage a mentorship program for CS underclassmen at UTD and host various workshops on topics like interview prep, intern fair tips, and web development. Supported the team in achieving their goals and setting priorities for marketing and event planning.

**HackUTD Industry Coordinator:** Served as the point-of-contact for several company sponsors and their recruiting team. Helped to run and facilitate a large-scale event with 600+ attendees with food and events.

**Empower Through Code volunteer:** Mentored students at local middle schools to foster interest CS and engineering. Created coursework to teach Python programming and engage students with logic puzzles.