

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.
- Communicated cross-functionality to clarify designs and changing product specifications when they no longer aligned with current engineering practices or could not be implemented on a reasonable timeline.
- 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.
- Developed on the FB website with **React** and **GraphQL** to create new dialog flows and reporting functionality.

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 as a customizable **Kafka** producer for internal cloud applications.
- Developed input forms and input validation techniques for customized data generation in **React** front-end. Researched and added warning to enforce new internal data standards.
- 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 (www.utdcometmarketing.com) 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.