

Ibtida Bhuiyan

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Education

University of Michigan — Ann Arbor

GPA: 3.56/4.0; Bachelor of Science in Engineering, Computer Science; Graduating April 2021

Relevant Coursework

Data Structures & Algorithms, Theory of Computation, Web Systems, Networks, Databases, Operating Systems, Software Engineering

Skills

Strong: C/C++, Python, JavaScript (Node.js & React.js), REST

Knowledgeable: Git, Deployment (Heroku & AWS), SQL, RPC, Material Design

Projects

Personalized Playlist Maker (Spotify Extension) Link: <http://www.spotify-ppm.com>

- Utilized **Node.js** and **React.js** to build a scalable, interactive web app that allows users to generate new playlists using their top tracks, artists, and genres as seeds using the **Spotify Web API**.
- Took advantage of a React UI Library to follow **Material Design** principles introduced by Google in 2014 to offer an aesthetically pleasing and easy-to-use User Interface.
- Deployed the app on a **Heroku** dyno running 24/7 to serve 20+ active monthly users.

Network File Server

- Built a robust, multithreaded hierarchical file server in **C++** that uses network sockets and an **RPC** (remote procedure call) architecture as the form of communication between clients and the server.
- Provided an interface for clients to create, delete, read, and write files and directories in the server.
- Assigned reader/writer mutexes on a directory and file-level granularity, allowing the server to service multiple requests at once, while still ensuring thread safety in reads and writes to a shared entity.

MapReduce (Hadoop)

- Implemented the mapreduce programming model in **Python** to simulate **distributed computing** of big data by one master and multiple workers.
- Used the threads, processes, and sockets libraries to mimic the concurrent communication between a master and its workers.

Employment

Valet Supervisor, First Class Valet — April 2018 - August 2019

- Worked as an on-call employee and supervisor at 30+ locations to ensure smooth operation, servicing 25+ cars per shift while upholding the company's reputation for outstanding service.
- Encouraged teamwork amongst employees through designating roles to individual valets, resulting in an increase in efficiency of services and leading to higher customer satisfaction.

Barista, Biggby Coffee — June - August 2016

- Learned how to effectively manage a cafe by taking care of day-to-day functions at the Biggby location including opening, closing, taking inventory, and filling orders independently.

Extracurricular Activities

Core Lead, Michigan Hackers — September 2018 - Present

- Initialized a core-team aiming to support members in developing their programming skills in groups of 3-5, resulting in higher levels of contribution in projects and a more positive membership experience.
- Taking an executive role in overseeing projects in the team through their development lifecycles by checking in with groups during weekly hack nights and offering suggestions to aid in boosting productivity.

AMDA Sterling Heights — September 2012 - Present

- Took a leadership position in planning and executing a picnic fundraiser for the mosque and overseas charity foundation, Poriborton, in the Spring of 2017.
- Volunteered at various soup kitchens around Detroit, taking on the role of cooking and serving food to homeless people in the area.
- Periodically cleaned roads with the Adopt-a-Road program organized by the Road Commission for Oakland County to help support the goal of maintaining a clean environment.