Ibtida Bhuiyan

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Education

University of Michigan — Ann Arbor
GPA: 3.50/4.0; Bachelor of Science in Engineering, Computer Science; Graduating April 2021

Relevant Coursework (* indicates the course will be completed by the end of Spring 2020)
Data Structures & Algorithms, Theory of Computation, Computer Organization, Web Systems, *Networks, *Databases, *Operating Systems

Skills

Strong: C/C++, Python, JavaScript (Node.js & React.js), REST
Knowledgeable: Git, Deployment (Heroku & AWS), MySql, Express.js, Material Design

Projects

Personalized Playlist Maker (Spotify Extension)   **Link:** https://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.

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.

CPU Cache Simulator
- Built a flexible cache simulator in **C** to process assembly language instructions, transferring data to and from memory to speed up programs.
- Allowed the cache to take on variable characteristics such as its associativity being direct-mapped, set-associative, or fully-associative, and having variable block size.
- Used a least-recently used (**LRU**) cache replacement policy for determining the ideal block to replace.

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 Leadership, Michigan Hackers — September 2018 - Present
- Taking an executive role in overseeing projects in the organization through their development lifecycles by checking in with groups during weekly hack nights and offering suggestions to aid in boosting productivity.
- Regularly taking part in teaching and learning from other members during weekly Data Structures and Algorithms brain teasers.

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.