Bilal Raja

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Core Competencies

- C++ Software Development (3 years)
- Python (2 years)
- Java (1 year)
- SQL (1 year)
- HTML/CSS/javaScript (2 years)

- ReactJS (1 year)
- MEAN Stack (1 year)
- Angular (1 year)
- iOS Development (1 year)
- Spring Boot (1 year)
- GoLang (1 year)

Education and Training

Bachelor of Arts : **Computer Science**, 2017
University of Michigan — Ann Arbor, MI
CSE Courses Taken: Web Database and Information Systems, Data Structures, Software Engineering, Introduction to Algorithms, Theory of Computation, Computer Organization, Database Management Systems, Cryptography, Essentials for Computer Scientists

Projects

Wikipedia Search Engine:
- Built a full-stack Wikipedia Search Engine utilizing **Python Flask**, **AJAX**, and **HTML/CSS/ReactJS**.
- Implemented a MapReduce server running on **Hadoop's CLI** that indexes and persists a set of Wikipedia files.
- Developed an index server that handles search queries and returns the best results based on **PageRank** scoring.

Photobook:
- Built a full-stack personalized photo viewing website using **NodeJS**, **HTML/CSS/Angular**, and **MySQL** which allows users to upload, group, and post photos.
- The frontend is implemented as **feeds** that contain photos posted by users and their friends.
- The backend is implemented as a **Cache Server** which abstracts the database and serves the purpose of reducing query latency.

Path Finder:
- Developed a **C++** program that takes as input a dictionary of any size and start and end words and attempts to find a path from the start to end word.
- With no limit on dictionary size, the program ran successfully on dictionaries of size 100,000 in under a minute.

Experience

Software Developer
July 2018 to Current
SatoshiSoup
- Worked on a startup that focused on incorporating Blockchain technology to provide company-specific enterprise solutions for our clients that included **Samsung** and **HTC**.
- Developed a full-stack e-commerce platform for our client, TheGreenSolution, employing **NodeJS**, **Express**, **ReactJS**, and **MongoDB** that allows users to make online purchases using a tokenized asset provided by

Application Developer
UMentor
- Developed an application that uses a **matching algorithm** which allows first year students to find a mentor that best suits their needs.
- Identified and **linked with multiple mentorship programs** within the University of Michigan.
- Learned **Swift programming** with no previous knowledge of mobile app development to develop the app.

- Implemented functionality to manage schedules, calendars, and events based on student interests and needs.