Zaid B. Shahid

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Education

University Of Michigan — Ann Arbor, MI
Bachelor Degree Computer Science — Aug 2021 - April 2025
Coursework: Data Structures & Algorithims, Web Systems, Computer Game Design

Oakland Community College — Farmington Hills, MI
Associates Degree Science — Sept 2019 - Aug 2021

Work Experience

Amazon Web Services (AWS) — Seattle, WA
Solutions Architect Intern — May 2023 - August 2023

- Expertise in designing scalable cloud solutions.
- Proficient in leveraging cutting-edge AWS services to address complex business requirements.
- Adaptable and skilled in keeping pace with evolving industry needs.
- Focused on optimizing performance, security, and reliability for clients.

University Of Michigan — Ann Arbor, MI
Audio Visual Aide — Aug 2022 - Present

- Troubleshoot, test, clean and perform maintenance on classroom audio-video equipment.
- Collaborate with professors to create a technological optimal environment for learning.

Skills

Programming Languages:	C++, C, Python, Git, HTML, JavaScript, React
Languages:	English, Urdu, Japanese (nov.)
Computer Programs:	AWS Suite, Microsoft Suite, Google Suite, Adobe Suite, Maya, Unity (nov.), Unreal Engine (nov.)

Projects

Instagram Clone *Python, React JS, JavaScript, SQLite, Flask*
Designed and wrote REST API backend using Python and Flask to pull data from SQLite Database for page content. Protected stored passwords utilizing K-anonymity and SALT encryption. Enhanced user experience by creating infinity scrolling, likes, browser history, and commenting features in React JS.

Image Resizing *C++*
Implemented a seam carving algorithm to remove disposable pixels in order to resize the given image all while keeping the main focal point intact.

Log File Manager *C++*
Created a simple interface for sorted log records. Includes a keyword search and category search. Logs could be appended from the master list into a separate list to be printed or exported.

Stock Market Simulator *C++*
Used a deque to simulate a day in a stock market. Kept track of hundreds of different stock brokers and trades they've completed along with offers that they put up. Connected the best buyer with the best seller to make sure both would get the best deal. Implemented a time traveler aspect to determine which stock a time traveler should buy to make the most profit.

MST and TSP *C++*
Designed Branch and Bound algorithms to help figure out the shortest possible route. Broke down both Prims and Kruskal's algorithms for a Minimum Spanning Tree then implemented them.

Scalable Search Engine - *Python, Flask*
Built a scalable search engine in Python utilizing PageRank and TF-IDF concepts. Designed HTML search interface to display search query results from REST API Python backend running on Flask. Utilized MapReduce to efficiently parse and index over 30 MB of Wikipedia pages. Implemented a REST API to handle user search queries using Flask.

MapReduce Server - *Python*
Developed a MapReduce server in Python which executes user-submitted MapReduce jobs with multi-server capability. Implemented multi-server functionality using multi-threaded TCP and UDP sockets for master-worker communication. Added fault tolerance functionality to create program resiliency in case a worker dies.