MICHAEL YOUSSEF

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TECHNICAL SKILLS

Front End | React, Javascript, NodeJS, CSS, HTML
Back End | Python
Testing/Deployment |
Developer Tools | Git, npm, Babel

EXPERIENCE

Back-End Software Engineer | Name of Application   Jan 2022 - Present

Backend redesign for reviews module of legacy e-commerce microservice   Javascript | Node.js | Express | PostgreSQL | EC2

- Optimized existing monolithic back-end of an e-commerce website to handle 360,000 requests per minute with low latency **(<20 ms)** and error rate **(<0.1%)** by horizontally scaling microservice to 5 AWS EC2 instances and using a least connections load balancing method with NGINX to increase fault tolerance
- Leveraged K6 and Loader.io to identify performance bottlenecks, then implemented caching to lower frequency of database retrieval to allow for a throughput increase of **733%**
- Reduced query times to database from 6,000 ms to **12 ms** by using aggregator functions and indexing foreign keys
- Mentored peer engineers on front-end development and best practices

Front-End Engineer, UI Lead | Name of Application   Jan 2021 - Jan 2022

Remote learning management system web application   JavaScript | Next.js | MUI | Node.js | Firebase | Jest

- Facilitated discussions with front-end team to assess client expectations and constructed Figma wireframe
- Directed modeling of data and API endpoints to allow for seamless frontend integration to backend
- Implemented server-side rendering with Next.js to improve page load time, achieving Lighthouse SEO score of 100

Front-End Software Engineer | Name of Application   2020-2021

Single page e-commerce website   JavaScript | React | Express | EC2 | Jest

- Architected a front-end service of a ratings and reviews system to allow users to post reviews, view average ratings, search by keyword, and sort by helpfulness, relevance, date, and/or star ratings for a specific product
- Improved web page quality by enabling text compression through Brotli and React Lazy Load, increasing Google Lighthouse performance by 132%
- Tracked user interactions throughout the application with React higher-order components to reuse component logic

PROJECTS

Front-End Engineer, UI Lead | Name of Application GitHub | Demo   Jan 2021 - Jan 2022

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EDUCATION

University of XXX - Master of Science, Computer Science, GPA (only >= 3.7)   2023
University of XXX - Bachelors of Science, Computer Science, GPA (only >= 3.7)   2022