Rishi Barad

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EDUCATION

UNIVERSITY OF MICHIGAN **Ann Arbor, MI**
B.S. Computer Science, B.S. Neuroscience December 2020
Relevant Coursework: GPA: 3.3/4.0
Data Structures & Algorithms, Object-Oriented Programming, Computer Security, Computer Vision, Web Systems, Mobile Apps, Software Engineering

SKILLS

Strong: C/C++, Python, JavaScript (React), SQL
Proficient: Java, Rust, Go, Swift, REST, Neural Networks, Amazon Web Services, Agile Scrum

EXPERIENCE

Full Stack Web Developer, Freelance *July 2020 – August 2020*
- Developed websites for 2 student organizations using React, HTML, CSS, and Bootstrap for interactive experience in conjunction with automated chat features

Research Assistant, Michigan Medicine *October 2016 – July 2019*
- Spearheaded 3-year pilot study examining impact of tDCS (a low-current form of neuromodulation) on recovery from aphasia (a brain disorder) with guidance from Dr. Carol Persad
- Invited to present results at Harvard's National Collegiate Research Conference

PROJECTS

Optical Music Recognition
- Created program that converts image of sheet music to instrumental audio track utilizing image pre-processing, music symbol extraction via deep-learning model, and data post-processing to produce audio
- Applied Agile Scrum techniques to optimize project cycle for team of 5

Market Genie
- Built Amazon Alexa Skill that helps investors get real-time stock prices and track watchlist performance with voice commands
- Developed backend using AWS Lambda in conjunction with NoSQL database (DynamoDB)

Instagram Clone
- Implemented REST API with Flask and utilized React to generate fully functioning Instagram clone deployed using AWS EC2 server
- Built scalable, interactive web app with client-side scripting features, such as infinite scroll, navigation history, commenting and liking

Map Reduce (Hadoop)
- Implemented Map Reduce programming model in Python to simulate distributed computing of big data by one master and multiple workers
- Utilized threads, processes, and sockets to mimic concurrent communication between nodes

ACTIVITIES

JPMorgan Chase Virtual Experience Participant
- Participated in open access 2020 JPMorgan Chase Virtual Experience hosted by Forage
- Created chart to display stock price data feed for trader's dashboard using Python for backend along with React and Chase's open source frameworks for frontend experience

Google Foobar
- Participated in Google's invitation-based challenge consisting of multiple levels of coding assignments

iOS Team, Michigan Hackers
- Integrated backend infrastructure for PhotoAssassin iOS game utilizing Google's Firebase platform

Curriculum Advocate, Tech for Social Good
- Collaborate with Engineering and LSA colleges to encourage design of multi-disciplinary courses in health, policy, and technology that discuss ethics of emerging technologies