Bruce Quach

Software Engineer

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❖ EDUCATION

- B.S., Computer Science - Louisiana State University, Baton Rouge, LA **May 2024 | GPA 4.03/4.33**
- **Minors:** Mathematics, Chinese
- **Related Coursework:** Software Systems Development, Data Structures & Advanced Algorithms, Database Management Systems, Operating Systems, Interface Design, Computer Networks, Programming Languages, Object Oriented Design, Artificial Intelligence, Machine Learning, LLM Development and Deployment

❖ TECHNICAL SKILLS

- **Languages:** JavaScript, Python, HTML, CSS, TypeScript, SCSS, SQL, Java, C++, Kotlin
- **Frameworks:** React.js, Redux, Tailwind, React Native, Node.js, Express.js, Django, Flask, D3.js, Spring Boot
- **Databases/Cloud:** MongoDB, MySQL, PostgreSQL, Docker, Redis, Firebase, AWS, RESTful API, Heroku
- **Source Control/Interpersonal:** Git, GitHub, GitLab, Bitbucket, Figma, Agile/SCRUM, Usability Testing

❖ PROFESSIONAL EXPERIENCE

PMG - Software Engineer I / Dallas, TX   June 2024 - Present
- Enhancing React.js/Redux analytics applications to achieve a ~20% improvement in report retrieval speed.
- Streamlining insights visualizations with Tailwind CSS, Ant Design, and custom TypeScript components.
- Augmenting AI-powered chatbot applications for SQL generation, reducing marketers' workload by up to 80%.

Timbalier Resources - Software Developer / Baton Rouge, LA (Remote, Part-Time)   November 2023 - Present
- Architecting React/Bootstrap web dashboards with TypeScript, utilizing Highcharts data visualizations and Flask/FEMA APIs to save prospective community clients up to $2 million annually in flood insurance premiums.
- Deploying Esri ArcGIS-based React tools to pinpoint infrastructure risks, utilizing AWS S3/CloudFront and Dockerized Flask applications in Elastic Beanstalk.
- Designing AWS/SQL database connections to cache community API data, decreasing load times by up to 90%.

Tesla - Software Engineering Intern / Fremont, CA   May 2023 - August 2023
- Enhanced React.js tools built with Ant Design and D3.js to streamline vehicle quality engineer workflow, contributing towards Craftsmanship team efficiency and a projected $5 billion Cybertruck revenue.
- Improved application performance up to 90% with Redux.js to efficiently access PostgreSQL enterprise data.
- Implemented Python ElementTree XML parsing for creation of Pandas dataframes uploaded to RESTful Django API endpoints, decreasing vehicle design file download times by up to 50% for graphical model construction.

Sparq - Software Development Junior Associate / Baton Rouge, LA (Hybrid)   August 2022 - December 2022
- Engineered scalable Java web apps/REST API endpoints to increase internal scheduling efficiency up to 25%.
- Leveraged Spring Boot and Spring Data JPA to access extensive MySQL and H2 data through React.js interfaces.
- Integrated JUnit testing within scheduling app API endpoints to decrease collaboration overhead up to 15%.

❖ PROJECTS

Project ProudME (React.js, MongoDB, Express.js/Node.js, Material UI, Recharts)   December 2022 - May 2024
- Led web development for a $110,398 research project funded by the LA Board of Regents to combat obesity.
- Optimized React.js application virtual journaling and graphing features for beta tests in 4+ middle schools.
- Integrated SendGrid API emails, Recharts data visualization, and OpenAI API for feedback and virtual coaching.
- Secured 200+ student users' data in MongoDB with authentication and bcrypt.js hashing algorithms.