# Enrique Rivera Jr

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## EXPERIENCE

**Visa: Software Development Engineer Intern**                     May 2024 – August 2024
- Coming soon! I will be on the Visa Net team for performance management and improvement.

**Amazon: Software Development Engineer Intern**                     May 2023 – August 2023
- Pioneered an agile latency tracking framework for the AWS Redshift console, impacting 100+ pages and inspiring other AWS console teams to adopt similar strategies for scalability.
- Enhanced latency metrics analytics accuracy by 55% using a TypeScript and React-based framework.
- Developed custom PSQL queries and implemented TestCafe automation tests to validate the framework's efficacy. Following Amazon's test-driven development standard and design patterns.

**Meta: Production and Software Engineering Fellowship**                     May 2022 - December 2022
- Mentored by Facebook engineers in Production Engineering and DevOps, successfully completing real-world projects hosted by MLH.
- Implemented and maintained CI/CD pipelines using GitHub Actions, encompassing redeployment to rigorous unit testing.
- Optimized application uptime and availability using a suite of technologies including Linux Systems, Flask, Docker, VPS, and MySQL.
- Developed a web 3.0 application using C++, interfacing with the Solana blockchain and managing cryptocurrency wallets for an enhanced user experience.

**University of Texas at Austin: Quantum Computing Researcher**                     May 2022 - August 2022
- Developed Python-based solutions for quantum communications, including the BB84 Quantum Key Distribution Protocol and teleportation using entanglement principles.
- Implemented foundational quantum algorithms in Python, such as Deutsch, Simon, Grover, and Shor, demonstrating in-depth expertise in quantum computing applications.
- Automated simulation experiments and visually presented data results using Python & JavaScript, streamlining research processes and insights using pandas and networkx libraries.

## EDUCATION / CERTIFICATIONS

**University of Texas at Austin**                     August 2021 – Present
Bachelor of Science in Computational Physics
- Quantum Computing - Freshman Research Initiative Member
- Elements of Computing Certificate
- Scientific Computation and Data Sciences Certificate

**Google IT Support Professional Certificate** ([Certificate](#))                     September 2021

## PROJECTS

**Ecommerce Storefront** - ([GitHub](#))
- An agile Next.js Typescript application that uses Shopify's storefront API or other headless CMS API to build an Ecommerce quickly and reliably.

**Computer Vision Targeting** - ([GitHub](#))
- Used a Raspberry Pi (Linux/Unix) and USB camera to track retro reflective tape with OpenCV in C++.
- It was able to provide crucial info of targets like distance and angle to be used in robotics competitions.

## SKILLS

**Technologies:** Docker, Git, CMake, OpenCV, Bash, Nginx, Digital Ocean, Unreal Engine 5, Pandas, .NET

**Programming:** Python, C, C++, JavaScript, Typescript, Java, Kotlin, Rust, SQL, C#, R

**Web/Other:** HTML/CSS, Redux, MongoDB, Next.js, React, Node.js, Angular.js, TensorFlow, Angular

**Relevant Coursework:** Scientific Computation in Numerical Analysis, Probability I, Calculus (I, II, III), Data Structures and Algorithms, and Parallel Computing.