

Priyanka Gautam

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EDUCATION

University of Calgary, Calgary, AB

B.S Software Engineering with Distinction, First Place in Engineering Design Fair

3.95/4.00

EXPERIENCE

University of Calgary | C, C++, Java, Python, SQL

May 2020 – April 2024

Engineering Learning Assistant

- Mentored 80+ students and led tutorials in key subjects such as Distributed Systems, System Design, Software Architecture, Programming Fundamentals and Practical Data Structures, improving their understanding of complex software engineering concepts and academic performance.

New Relic | React, TypeScript, Java, Redux, NRQL

May 2021 – September 2023

Full Stack Software Engineer – Distributed Tracing, Product

- Developed and launched a Distributed Tracing Setup Wizard using cross-platform tools, significantly enhancing customer capability to diagnose and fix instrumentation gaps. This solution improved system reliability and performance across multiple environments, aligning with mission-critical software development.
- Engineered a prioritization algorithm for applications based on performance metrics, optimizing system efficiency and enhancing database performance. This resulted in a 20% improvement in service reliability and a better user experience, demonstrating expertise in system design and algorithm optimization.
- Optimized New Relic's internal configuration interface to streamline rate limit management and backend processes, reducing response times by 30% and improving database query efficiency.
- Integrated distributed tracing features across multiple services, improving cross-service communication and collaboration across 4 teams on 15 projects. This led to improved system reliability and product cross-functionality.
- Developed monitoring dashboards in collaboration with the Product Manager, providing critical insights into system performance and enabling data-driven decisions on customer engagement and feature impacts.
- Created comprehensive artifacts from a detailed analysis of Trace tree construction, which informed new pipeline architecture and enhanced testing protocols.
- Utilized real-world customer data to identify and resolve database-related issues, leading to enhancements in system reliability and user experience.
- Investigated and resolved data correctness issues in database queries and schemas, ensuring data integrity and improving system reliability.

PROJECTS

Revamped Calgary Co-Op Handheld Scanner Application | React Native, Python, Django

September 2023 – April 2024

Project Manager & Frontend Technical Lead

Placed First in Engineering Design Fair | [Poster](#) | [Figma](#)

- Engineered a mobile application with optimized data synchronization for low-connectivity environments, improving inventory management through advanced system design and scanning technology.

BrainyBees | React | [Website](#) | [GitHub](#) | [YouTube](#)

- Developed an educational platform in C++ designed to teach young children coding through a user-friendly interface, featuring interactive lessons, games, quizzes, and personalized coding exercises, all enhanced with gamified learning and assessments to boost comprehension.

VR HaptoSkin Pro & VR LayerSense | C++, OpenGL, Unity, Blender, OpenHaptics, Phantom Omni | [GitHub](#)

- Developed and evaluated virtual reality applications using C++ and OpenGL for needle placement training, resulting in a 17% higher success rate and improved user performance through varying haptic feedback per skin layer.

GetHomeSafe | React Native, Typescript, Node, Express, MongoDB | [Frontend GitHub](#) | [Backend GitHub](#) | [Figma](#) | [Specifications](#)

- Designed and built a distributed mobile application that enhances personal safety through minimal location sharing and session-based monitoring, ensuring friends safely reach their destinations with a privacy-first approach, setting it apart from traditional location-tracking apps.

SKILLS

C, C++, C#, Java, Linux, Windows, TDD, Agile, Python, Pandas, HTML, CSS, SASS, JavaScript, React, TypeScript, NRQL, React Native, Redux, Jest, Enzyme, Django, Docker, Git, OpenGL, Unity, OpenHaptics, Docker, Figma, NextJS, Android Studio, DevOps IOS mobile development, Embedded System Interfacing ([YouTube](#)), Distributed Systems, System Architecture & Design, Scrum