

# Pragya Khanna

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## Professional Summary

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Engineer with hands-on experience in **full-stack development**, **DevOps**, and **embedded systems**, delivering scalable and maintainable software. Proficient in designing **CI/CD pipelines**, deploying applications on **Linux**, and building solutions using **React**, **.NET Core**, and **Python**. Adept at debugging, system optimization, and collaborating in **Agile** teams to ship production-ready code.

## Technologies

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**Languages:** Python, C#, Java, JavaScript, TypeScript, C/C++ , SQL, HTML/CSS

**Frameworks/Libraries:** .NET Core, ReactJS, Redux, Tailwind CSS, Node.js, Express.js

**Tools & Platforms:** Azure DevOps, Git, Firebase, Kubernetes, MSSQL, AWS, Docker, Jenkins, Visual Studio

## Experience

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**Full Stack Developer (Co-op)**, L3Harris Technologies – Waterdown, ON Sept 2023 – Sept 2024

- Developed a **C#/.NET** support dashboard, automating ticket triaging and saving **\$100K+ annually** in manual effort.
- Refactored and optimized **15+ Azure SQL tables**, improving schema design and boosting query performance by **50%**.
- Improved **backend reliability** through better exception handling and recovery workflows, reducing system downtime by **40%**.
- Enhanced **CI/CD pipelines** by developing **unit tests** for backend features, enabling **automated validation** during deployment.
- Debugged production issues using **log tracing tools**, accelerating resolution by **30%** without disrupting service.

**Teaching Assistant, Sessional**, McMaster University - Hamilton, ON Sept 2023 – April 2025

- Taught **80+ students** core programming in **Python**, **C**, **Linux**, and **AI/ML** through labs and hands-on projects.
- Reviewed **200+ assignments**, providing feedback on **code quality**, logic, and best practices.
- Mentored students on **debugging techniques** and **system-level thinking**, fostering stronger programming skills.

## Projects

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**Stealth Startup (Personal Startup)** (*React Native, Redux, Express.js, MongoDB, NGINX*) Dec 2024 – Present

- Built a full-stack web and mobile application using **React Native CLI** and **Redux**, with **MongoDB Atlas** for NoSQL data storage.
- Set up **NGINX** for load balancing and **Express.js** middleware with **Redis** caching and API rate limiting, reducing backend latency by 30% and improving scalability.
- Implemented secure user authentication and route protection using **JWT** across both mobile and web platforms.

**Fit-Plant – Smart Plant Monitoring System** (*React, Next.js, Tailwind, Node.js, Firebase*) Dec 2024 – Apr 2025

- Developed a cross-platform IoT web application using **React**, **Next.js**, and **Tailwind CSS** to monitor real-time plant health metrics.
- Integrated **Firebase Firestore** for live sensor data logging and **Firebase Auth** for secure user authentication.
- Optimized API performance using **Node.js** and **Axios**, reducing dashboard load times by 30%.

**Online Group Chatting System** (*Python, Berkeley Sockets, Multicast, Multithreading*) Apr 2025

- Built a **real-time chat system** in **Python** using **multicast** for room-based messaging with dynamic creation and deletion.
- Implemented a **threaded directory server** using **Berkeley Sockets** to handle multiple client sessions and room metadata.

## Education

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**McMaster University**, B.Eng in Computer Engineering (Co-op) Sept 2020 – Apr 2025

- McMaster Honor Award (\$1,000)
- **Coursework:** Data Structures & Algorithms, Operating Systems, Embedded Systems, Algorithm Design & Analysis