

Naresh Prasad Koirala

Full-Stack Developer | Software Developer | Embedded & Software Systems

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PROFESSIONAL SUMMARY

Software Developer with 3 years of experience building applications using C#, .NET, MAUI, and SQL. Strong background in full-stack development with expertise in React, Next.js, Docker, and embedded systems integration. Passionate about creating efficient, user-friendly applications and solving real-world problems through code.

SKILLS

- **Programming Languages:** C, C#, Python, SQL, NoSQL, HTML5, CSS3, JavaScript, TypeScript, XAML
- **Frameworks & Libraries:** .NET, .NET MAUI, ASP.NET Core, Blazor, React, Next.js, Tailwind CSS, AJAX, jQuery
- **DevOps & Tools:** Docker, Git, CI/CD pipelines
- **Software-Hardware Integration:** Embedded firmware + app integration, real-time debugging
- **Application Development:** Full-stack C#/.NET apps, MAUI cross-platform apps, React/Next.js web apps

EDUCATION

NAIT | Edmonton, CA | 2023 – 2025

Diploma: Computer Engineering Technology

Developed software applications using C# and .NET by designing and implementing full-stack solutions and embedded system integrations, gaining practical skills to deliver reliable, real-world software projects.

PROJECTS

Resume Builder System

Developed a complete Resume Builder system composed of three integrated components:

- **Resume Builder API (ASP.NET Core Web API):** Implemented backend APIs for job data integration, AI-driven resume customization, and OpenXML file generation.
- **Resume Builder Web App (Next.js, React, Tailwind, TypeScript):** Built a responsive web interface for job search, resume creation, and user interaction.
- **Resume Builder Mobile App (MAUI):** Designed a cross-platform mobile app providing the same features.

Key Achievements:

- Integrated multiple job site APIs to fetch and validate job listings.
- Implemented AI-powered customization to generate tailored resumes and cover letters.
- Enabled input of job description URLs to automatically build downloadable application documents.

Automated Connect 4 Game

Developed a robotic Connect 4 system combining motorized hardware and software for automated gameplay. With multiple difficulty levels. Integrating hardware and software seamlessly.

- Programmed Raspberry Pi Pico in Micro Python for game logic and AI bot.
- Created a web interface on ESP32 for real-time gameplay and interaction.
- Designed motorized hardware for precise token placement on the board.

SpO2 Monitoring System Design

Designed and developed a custom STM32-based SpO2 monitoring PCB using Ki-Cad, programmed firmware in C with Cube IDE to process sensor data, resulting in a fully functional, tested prototype fabricated via PCBWay.

- Created schematic and PCB layout in Ki-Cad for STM32 and SpO2 sensor integration.
- Developed embedded C firmware to acquire and process SpO2 data using Cube IDE.
- Managed PCB fabrication and conducted hardware testing to validate system performance.

CERTIFICATIONS

- Docker Foundations Professional Certificate
- Microsoft Foundational C#