RURAL ALBERTA

HEALTH CONNECT

AI-Powered Health for Every Community

Connecting rural and remote Albertans to essential care. Our intelligent telemedicine app provides instant triage, symptom tracking, and support, designed to overcome distance and harsh weather conditions. Because timely, informed healthcare should be accessible to everyone, everywhere.

Table of Contents

What does the Rural Alberta Health Connect Project?

This project focuses on developing an AI-enhanced telemedicine platform specifically designed for the challenges faced by rural and remote communities in Alberta. The goal is to create a system that assists with initial symptom assessment and helps users make more informed decisions about seeking care.

The core concept is to combine secure mobile technology with a carefully designed decision-support system. This system will provide users with guidance on potential next steps, which could range from self-care and monitoring to seeking urgent professional help. It is intended to supplement, not replace, the critical role of healthcare professionals, helping to connect individuals with the right level of care more efficiently.

The Vision

Success means creating a tool that is trusted and valued by rural communities and healthcare providers. We envision a future where distance is less of a barrier to health information. Success looks like a community health nurse having more context before a visit, a individual managing a chronic condition feeling more supported between appointments, and overall, a more resilient and responsive support system for those who live far from urban centers.

What You'll Be Doing

Your work will be split across key areas:

1. *Technical Development:*
   - Developing the AI Support Engine: You'll work on fine-tuning models to assist with understanding user-reported symptoms and providing relevant information. This involves careful data processing and algorithm development.
   - Building the Mobile Platform: Developing a reliable, Android-first mobile application with a strong focus on functionality in low-bandwidth environments and an intuitive user experience.
   - Engineering the Backend: Working on secure data handling, API development for potential third-party device integration, and ensuring system robustness.

2. *Research & Analysis:*
   - Stakeholder Needs Analysis: Synthesizing information from healthcare providers and community representatives to ensure the tool meets real-world needs.
   - Data Privacy and Security: Researching and implementing best practices for data protection and compliance with relevant regulations.
   - Guideline Integration: Researching existing medical guidelines to inform the structure of the support system's pathways.

3. *Design Elements:*
   - UI/UX for Clarity and Accessibility: Designing interfaces that are clear, calm, and easy to use for a diverse population, potentially including considerations for multiple languages.
   - Communication Design: Helping craft the language of the guidance provided to ensure it is helpful, unambiguous, and always emphasizes the importance of professional medical consultation.

The Honest Truth: Our Responsibilities

This project operates within a highly responsible and ethical framework.

1. A Support Tool, Not a Replacement: This is the most critical principle. The system is designed to support human decision-making, not replace it. Clear, prominent disclaimers will state that it does not provide medical diagnosis or treatment.
2. Safety and Liability are Paramount: All guidance provided will be carefully designed to err on the side of caution, directing users to seek professional help when any potential risk is identified. Rigorous testing and documentation are essential.
3. Collaboration and Respect: We are building this with communities, not for them. This requires a mindset of humility, active listening, and a commitment to co-creation, especially in engagements with Indigenous communities.

What You Need

Technical Requirements:

- Programming Languages: Python, JavaScript/TypeScript (likely with a framework like React Native), experience with databases.
- Tools & Concepts: An interest in or experience with AI/ML concepts, mobile development, API design, and cloud services is important.
- Bonus Skills: Any familiarity with data security, accessibility standards, or multi-language support is a plus.

Mindset Requirements:

- Empathy and Ethics: You must be deeply considerate of the end-user and the serious context in which this tool will be used
- Precision and Care: You understand that quality and clarity in code and communication are non-negotiable.
- Team-Oriented: You thrive in a multidisciplinary environment where technical, design, and ethical considerations are constantly in dialogue.
- Resilient and Adaptable: You are motivated by complex challenges and are able to navigate ambiguity.

Project Structure

- Duration: 10 weeks, structured as 3 sprints.
- Team Size: 5-7 dedicated individuals.

Possible Deliverables:

1. A functional prototype mobile app with a core symptom logging and information framework.

2. A research and design document outlining stakeholder needs, ethical guidelines, and a technical architecture plan.

3. A working model demonstrating a specific, well-defined assistance pathway (e.g., for a non-emergency condition).

4. A UI/UX prototype showcasing the user flow and design system.

Is This Project Right for You?

You might LOVE this project if...

- ✓ You want to work on a meaningful project with potential for real social impact.
- ✓ You enjoy challenges that sit at the intersection of technology, design, and ethics.
- ✓ You are meticulous and believe in building safe, reliable, and well-documented systems.
- ✓ You are a strong collaborator and communicator.

You might prefer a DIFFERENT project if...

- ➢ You are looking for a fast-paced, purely technical project without broader considerations.
- ➢ You are uncomfortable with strict ethical guidelines and safety-critical development.
- ➢ You prefer working independently rather than in a tightly-knit, collaborative team.
- ➢ You are seeking to build a commercially-focused app without the complex stakeholder landscape.

Getting Started

We will begin by fully immersing ourselves in the problem space, engaging with research, and establishing our core ethical and safety protocols. The first steps are about understanding the landscape deeply to ensure we build responsibly.

If you are ready to contribute to a challenging project that requires care, collaboration, and a commitment to doing good well, we need your skills and mindset. Let's begin.