

# Vincent Chirchir

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## Professional Summary

- Currently pursuing a Bachelor of Applied Geographic Information Systems at Southern Alberta Institute of Technology (SAIT)
- Verified and collected over 3000 municipal assets, including fire hydrants, and assessed their condition to support the Asset Management
- Improved data accuracy and accessibility on the municipality's GIS open data portal by performing metadata QA/QC and preparing public thematic maps
- Used ArcGIS Pro to analyze spatial distribution, condition, and coverage of fire hydrants, supporting planning and risk management in the municipality
- Created Point of Sale (POS) for Fieldmax Suppliers Ltd using Python (Flask/Django) and PostgreSQL, which they use to track their daily, weekly, and monthly sales

## Skills

### Technical Skills:

- **GIS Tools:** ArcGIS Pro, ArcGIS Online, AutoCAD, FME, ArcGIS Field Maps,
- Microsoft Office Suite
- Python, PostgreSQL
- GPS data collection, metadata management, Cartographic design, interpretation, and visualization

## Experience

### Geographic Information Systems Technician | Municipality of Chatham-Kent, ON | Summer 2025

- Supported the Asset and Management Department by collecting over 6000 spatial data using ArcGIS Field Map for municipal assets, contributing to an increase in accuracy for infrastructure datasets
- Produced over 10 thematic maps, requested maps, and QA/QC reports, helping internal decision-making and public communications related to asset planning
- Collaborated with GIS specialists to update the municipality's open data portal, leading to public access and clearer metadata
- Ensured high data integrity by reviewing and correcting field-collected attributes, reducing rework and increasing confidence in field data by approximately 25%

- Developed dashboards in ArcGIS Online for real-time visualization of asset conditions

## **Related Project Experience**

### **Socio-Economic GIS Analysis: Housing Costs in Calgary Southern Alberta Institute of Technology**

- Conducted spatial analysis to examine the correlation between access to parks and residential property values across Calgary communities
- Applied buffer analysis, hotspot analysis, and spatial regression using ArcGIS Pro, resulting in visual outputs that supported spatial equity discussions
- Created presentation-ready thematic maps and statistical summaries, which were showcased during the GIS program's final project exhibition

### **Fire Hydrant Condition and Coverage Analysis Municipality of Chatham-Kent | Summer 2025**

- Analyzed more than 1400 fire hydrants across Chatham Ward using ArcGIS Pro to evaluate spatial distribution and coverage
- Applied IPWEA condition scale (1–5) and found that 68% were in Good or Fair condition, while 12% required urgent maintenance.
- Conducted 500m buffer and network service area analysis to assess hydrant coverage and identified 7% of properties falling outside optimal service range
- Provided data-driven recommendations for maintenance scheduling and resource allocation, improving emergency response planning

### **Fieldmax Point of Sale (POS) System – Fieldmax Suppliers Ltd**

- Designed and developed a sales tracking system using Python (Flask/Django), PostgreSQL
- Implemented product upload, sales recording, and FIFO-based stock management
- Built an admin and staff dashboard with role-based access, sales analytics, and profit tracking.
- Deployed to Render for remote access.

## **Education**

**Bachelor of Applied Geographic Information Systems**      **Expected: 2026**  
Southern Alberta Institute of Technology (SAIT), Calgary, Alberta