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# Francis Emmanuel Calingo

## Aspiring Geospatial Data Scientist

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Over 6 years of experience in quantitative and qualitative data analysis of multi-sectoral datasets of varying sizes, including demographic and socioeconomic data, and data related to migration patterns.

### SKILLS

<b>Data analysis &amp; Database</b>	Python (Pandas, NumPy); R (dplyr, ggplot2); SQL; Tableau; MS Excel; Google Sheets
<b>Spatial Analysis &amp; Maps</b>	ArcGIS (Pro, StoryMaps); QGIS; Python (Folium, GeoPandas); R (sf)
<b>Data Visualization</b>	Matplotlib; Seaborn; Plotly; Geopandas; ggplot2; Shiny; Tableau
<b>Statistical Knowledge</b>	Exploratory data analysis; probability distribution; hypothesis testing; correlations
<b>Other Skills</b>	LaTeX; Git; Quantitative and qualitative research methodologies; presenting to non-technical audiences

### TECHNICAL EXPERIENCE

#### Object Detection Model Assistant (Geospatial App)

April 2025 — July 2025

M2M Tech

Greater Vancouver, BC (Remote)

- Collaborated in a 19-member team to build a deployment pipeline for an object detection model supporting a client company's geospatial capabilities in environmental disaster mitigation.
- Automated large-scale image processing and labelling using Python, PowerShell, and the Label Studio API, improving efficiency and scalability while maintaining well-documented workflows.

#### Monitoring Agent-Media Sentiment Analysis

August 2024 — June 2025

Elections Canada

Gatineau, QC (Telework)

- Conducts weekly comprehensive sentiment analysis of over 5,000 social and traditional media comments across 38 platforms, utilizing dashboards to present insights which contribute to high-level research on democracy.
- Supervised a special research project on the Filipino Canadian community and their media presence, resulting in Tagalog becoming the 9th most monitored non-official language during the election period.

#### Site Auditor-Financial Data & Reporting

August 2022 — August 2024

Great Canadian Casino Resort

Toronto, ON

- Processed, cleaned, and analyzed data from over 6,000 daily financial transactions via Excel, providing analytical reports to executives and external auditors via Outlook and MS Teams.
- Spearheaded data processing improvements such as alternative Excel formulas that reduced completion time by up to 33%, optimizing workflows, organizing documentation efforts, and maintaining data integrity.

### EDUCATION

Master of Arts, Human Geography | York University, Toronto, ON

Starting September 2025

Honours Bachelor of Science, Applied Mathematics and Statistics | York University, Toronto, ON

June 2022

- **Sample coursework:** Statistics, Calculus, Categorical Data Analysis, Mathematical Modelling, Linear Algebra, Computational Math
- **Activities:** Filipino Student's Association at York (FSAY) Outreach Lead (2016-19), Peer Tutor (2017-18)

Certificate Program, Data Science | University of Waterloo, Remote

April 2025

- **Coursework:** Foundational Data Science, Statistics for Data Science, Machine Learning, Big Data Management Systems & Tools

### SELECTED PROJECTS

#### Elections Canada Demographic Projects ([Link](#))

MS Excel, R

Conducted statistical, correlation, and geospatial analysis on Filipino Canadian settlement and socioeconomic trends, with findings justifying the agency's need for more Filipino-centred resources for Maritime and francophone regions.

#### 2025 National Mental Health Datathon Project Entry ([Link](#))

MS Excel, Oracle DB, NextCloud

Queried over 1 million records of proprietary mental health and demographic data from 10 datasets in a team of 7, feeding processed data to Tableau and maintaining documentation to present insights for institutions (e.g., CMHA).

### COMMUNITY LEADERSHIP

#### Community Leadership in Filipino Youth Organizations

2016 — Present

- Led data-driven initiatives such as quantitative analyses, which contributed to an 800% increase in FSAY's membership and Filipino Canadian Students Association's (FILCASA's) expansion to 23 member organizations.
- Conducted research on socioeconomic data, which contributed to a record 300 registrations at the 2021 Pinoys on Parliament Conference and Anakbayan's educational workshop series "Realities of Filipino Migration".