Francis Emmanuel Calingo

Coder & Quantitative Spatial Researcher

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Mathematics and statistics graduate, and human geography masters student with 8+ years of experience in data and data-adjacent roles, having completed deliverables for over 15 high-impact geospatial, coding, and data projects across 10 organizations.

SKILLS

Languages	Python; R; SQL (familiarity); HTML (familiarity); LaTeX; Markdown
Libraries & Frameworks	Pandas; NumPy; Matplotlib; Seaborn; Plotly; Scikit-Learn; Geopandas; dplyr; ggplot2
Tools & Technologies	Tableau; Geospatial Tools (e.g., ArcGIS, QGIS); MS Excel; Google Sheets; Jupyter; VS Code
Other Skills	Statistical knowledge (e.g., probability distributions, correlation); Workflow documentation; Effective presentation for non-technical audiences

TECHNICAL EXPERIENCE

Teaching Assistant, Faculty of Environmental and Urban Change September 2025 — Present
York University *Toronto, ON*
- Leads weekly tutorials for a geography course, interacting with, grading, and providing feedback to over 50 students.
- Currently developing quantitative methods to record and analyze attendance, and compare it with student performance Python, Excel, and Zoom, with findings projected to influence course delivery and lead to improvement in grades.

Monitoring Agent-Media Sentiment Analysis August 2024 — June 2025
Elections Canada *Gatineau, QC (Telework)*
- Conducted 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 debugging Excel formulas, implementing alternative Excel formulas that reduced task completion time by up to 33%, optimizing workflows, and organizing paper documentation efforts.

Data-Adjacent Roles in Retail and Education September 2017 — August 2022
Home Depot, York University, Mathnasium *Toronto, ON*
- Completed up to 75 POS transactions and data inventory entries per shift for Home Depot, and provided elementary, high school, and university-level math support for over 50 students for Mathnasium and York University's academic peer-support program.
- Performed attendance analyses of students attending sessions, influencing content delivery, and resulting in a 300% increase in student participation at York's sessions and contributing to a 10-25% increase in mathematics grades for Mathnasium students.

EDUCATION

Master of Arts, Human Geography | *York University, Toronto, ON* Expected June 2027
- **Sample coursework:** Spatial Urban Relations, Critical Mapping & GIS, Quantitative & Qualitative Research Design

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

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

SELECTED PROJECTS

Object Detection Model for M2M Tech Client Company | Python, PowerShell, Label Studio (Link) April 2025 — July 2025
Collaborated in a 19-member team to deploy an object detection model for a client company's disaster mitigation app, automating large-scale image processing and labelling of over 1000 images, improving efficiency and scalability with clean documentation.

Elections Canada Demographic Projects | Excel, R (Link) November 2024 — June 2025
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.

VOLUNTEERING AND COMMUNITY LEADERSHIP

Open Source Mapping Contributor (OpenStreetMap, MapSwipe, Humanitarian OpenStreetMap Team)	2025 — Present
Data-Adjacent Roles in Filipino Youth Organizations (Financial, Membership, Sponsorship, Demographic Data)	2016 — Present
Participant at 2025 Converge National Mental Health Datathon (Oracle DB, SQL)	2025
Peer Tutor at York University (Calculus, Linear Algebra)	2017 — 2018