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Francis Emmanuel Calingo

Mathematics Graduate, Coder, Spatial Analyst

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Mathematics and statistics degree holder with 4+ years of experience in data and data-adjacent roles, and a track record of completing high-impact projects in the areas of community organizing, finance, tech, and public policy.

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

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 of over 1000 images 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)

- 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.

Math Instructor

August 2021 — August 2022

Mathnasium Canada

Toronto, ON

- Provided math-related and tailored academic support to up to 12 students per shift from a wide variety of grades and topics, using verbal, visual, and other techniques to explain complex topics.
- Oversaw improvements in many students' grades over the course of the year, ranging from a 10-25% increase.

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
- Activities:** Bethune College Academic Peer Support-Calculus (2017-20)

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 | MS 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.

2025 National Mental Health Datathon Project Entry | MS Excel, Oracle DB, NextCloud ([Link](#))

April 2025

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

Data-Adjacent Roles in Filipino Youth Organizations

2016 — Present

- Led data-driven initiatives such as quantitative analyses, which contributed to an 800% increase in York's Filipino Student Association'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".