

# FRANCIS EMMANUEL CALINGO

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## SUMMARY OF SKILLS AND QUALIFICATIONS

- Over 6 years of experience in quantitative and qualitative data analysis of multisectoral datasets of varying sizes, including demographic and socioeconomic data, and data pertaining to migration patterns.
- Proficiency in programming languages (Python, R, SQL), data visualization tools (Matplotlib, Seaborn, tidyverse ggplot2, Tableau), spatial analysis tools (ArcGIS, GeoPandas, sf), statistical techniques (regression analysis, predictive modelling, geospatial analysis).
- Ongoing experience in integrating data analysis within social science frameworks, particularly in community-based research, policy analysis, and quantitative literature review.
- Transferable research communication skills through report-writing and analysis, educational workshop delivery, community outreach, and presentation of complex topics to non-technical audiences.

## EDUCATION

### York University, Toronto, ON

**MA Critical Human Geography**

Expected June 2027

**HBSc. Applied Mathematics and Statistics | MATLAB, R, Python**

June 2022

- **Final Year GPA (Undergrad):** B+ | 7.0/9.0
- **Sample relevant coursework:**
  - **Quantitative Analysis:** Mathematical Statistics I (B), Applied Categorical Data Analysis (A)
  - **Modelling and Programming:** Computing for Mathematics and Statistics (B+), Mathematical Modelling (A)
  - **Socioeconomics and Social Sciences:** Introduction to Microeconomics (A), The Global South and Human Rights (A), Reasoning About Social Issues (A), Sociology of Sport (A)
- **Activities:** Orientation Leader (2016-18), Peer Tutor (2017-18), Filipino Student's Association (FSAY) Council Member (2016-20), Peer-Assisted Study Session (PASS) Leader (2019-20)
- **Awards:** \$1500 York Automatic Entrance Scholarship (2015), Filipino Student's Association at York (FSAY) Executive of the Year (2019)

### University of Waterloo, Online

**Certificate Program, Data Science | Python, SQL, Spark**

Expected May 2025

- **Coursework:** Foundational Data Science (92%), Statistics for Data Science (93%), Machine Learning (84%), Big Data Management (TBA)

## SUPPLEMENTARY EDUCATION

**Professional Certificate, Data Science | Python, SQL | IBM, [Online](#)**

March 2025

Topics Covered: Data Analysis, Data Visualization, Data Methodology, Databases & SQL, Generative AI

**DataTalent Upskilling Program | Python, MS Azure | M2M Tech, Online**

February 2025

Topics Covered: Data Analysis & Visualization, Machine Learning (Classification, Clustering, Regression)

**Specialization, GIS, Mapping, and Spatial Analysis | ArcGIS | University of Toronto, [Online](#)**

January 2025

Topics Covered: GIS Data Acquisition and Map Design, Spatial Analysis and Satellite Imagery in a GIS

**Certificate, French As A Second Language | MS PowerPoint | La Cité collégiale, Ottawa, ON**

July 2022

Course taken: French as Second Language: 86%

## SELECTED PROJECTS

**Demographics of Filipino Canadians-Elections Canada Project** | R | `ggplot2`, `sf`, `dplyr`, `corrplot`, `CatEncoders`  
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.

**Subnational Socioeconomic Analysis of Canadian Census Data** | R | `car`, `spida2`, `effects`, `lattice`, `latticeExtra`  
Developed statistical models based on 2016 Canadian Census data to explore causal relationships of socioeconomic variables, providing evidence that increased educational accessibility and poverty mitigates out-migration.

**Visualizing Migration in Canada** | Python | `pandas`, `seaborn`, `plotly`, `numpy`, `geopandas`, `matplotlib`  
Extracted and analyzed migration and other demographic data from Statistics Canada, creating interactive graphs and a choropleth map to present data visualizations that could influence policy decisions such as the location of consulates.

## PROFESSIONAL EXPERIENCE

**Monitoring Agent** | MS Excel | Elections Canada, Gatineau, QC (Telework) August 2024 – Present

- Conducts weekly comprehensive sentiment analysis of over 5,000 social and traditional media comments via Excel, utilizing dashboards to present insights which contribute to high-level research on Canadian democracy.
- Supervised a special quantitative and qualitative research project on the Filipino Canadian community and their media presence, resulting in a 200% increase of weekly collated Filipino language content.

**Site Auditor** | MS Excel | Great Canadian Casino Resort Toronto, Toronto, ON August 2022 – August 2024

- 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 and maintaining data integrity.

**Math Instructor** | Mathnasium Canada, Toronto, ON May 2019 – May 2020

- 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.

**PASS Academic Peer Leader** | Google Workspace | York University, Toronto, ON May 2019 – May 2020

- Facilitated weekly study sessions for calculus courses, adapting instructional strategies based on attendance data, course literature, and session participants' diverse learning pace to improve student participation by 300%.
- Promoted the PASS academic program through various means such as conducting five in-class announcements, weekly dissemination of posters, daily email correspondence, and leading of academic tour groups.

**Parliamentary Intern** | MS Excel, Outlook | House of Commons of Canada, Ottawa, ON May 2019 – May 2020

- Provided administrative data support for MP Francesco Sorbara's office (i.e., creating and organizing multiple, email correspondence with over 100 MPs, attending House Finance Committee meetings, answering calls).
- Successfully argued for the internship's permanence and impact, leading to the creation of the FilCan internship program several years later.

**Front End Associate** | Home Depot Canada, Toronto, ON September 2017 – August 2022

- Maintained the cleanliness of the parking lot while providing data support in inventory tracking, cash counting, and customer order completions.
- Processed up to 75 POS transactions, 5 customer orders, and 10 loading requests per shift.

## VOLUNTEERING AND COMMUNITY ORGANIZING EXPERIENCE

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### Anakbayan Toronto & North York | Ontario

November 2021 – Present

- Provides operational support (i.e., conducts periodic data-based membership assessments, plans initiatives and events, writes assessment reports on initiatives and events, performs socioeconomic analysis of local entities).
- Facilitated an interactive educational workshop at the 2023 Pinoys on Parliament Youth Conference called “Realities of Filipino Migration”, where socioeconomic data on Filipino Canadian communities were presented

### Pinoys on Parliament (POP) Youth Conference | Remote & Ottawa, ON

December 2020 – March 2024

- Successfully helped POP reach several key milestones, including a record 300 registered delegates in 2021 after leveraging geographic data to identify high-density Filipino communities in Canada for POP’s outreach.
- Collaborated on sponsorship packages and POP’s statement on anti-Asian racism, scheduled workshops, and completed 500 grant applications that emphasized POP’s potential positive impact on each grant’s community.

### Filipino Canadian Students Association (FILCASA) | Toronto, ON

August 2018 – May 2021

- Managed and analyzed outreach data, budget, and constituent organizational progress for a growing network of Filipino student organizations across Canada via social media, MS Office, and Google Workspace.
- Conducted geographic and socioeconomic analyses to optimize event planning and increase organizational engagement, resulting in FILCASA’s expansion to 23 full member organizations across Canada by 2020.

### Bethune College at York University | Toronto, ON

January 2017 – December 2018

- Hosted free weekly tutoring sessions for students taking courses in linear algebra and statistics topics, tutoring up to 5 students per week and adjusting my communication strategies to cater to different learning abilities.
- Vigorously promoted the peer tutoring programme through various means (e.g., in-class announcements, dissemination of posters and social media posts, email correspondence, verbal promotion at club events).

### Filipino Student’s Association at York University (FSAY) | Toronto, ON

September 2016 – May 2019

- Handled data, reports, and meeting minutes regarding campus and external organizations to guide FSAY’s outreach agenda, leading to an 800% increase in active membership and a 50% increase in annual events.
- Spearheaded and supervised the inaugural Battle of Barangays competition, gathering socioeconomic metrics on participants such as commute times to help FSAY plan more equitable events related to the competition.

## CONFERENCE AND SUMMIT EXPERIENCE

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### Racial Justice Toronto Summit 2024 | Urban Alliance of Race Relations (UARR) Toronto, ON

2024

- Engaged in constructive discussions regarding racial equity in education, community safety, and poverty reduction with municipal-level policy professionals and community organizers at UARR’s annual racial justice summit.
- Conducted social investigation and class analysis of participants and the event itself, incorporating it into a report-back document for Anakbayan Toronto.

### Kapwa Rising Anti-Racism Community Conference | Kabangka Toronto, ON

2024

- The very first anti-racism conference hosted by Kabangka, a non-profit Filipino/a/x Canadian youth organization that also hosts the annual Pinoys on Parliament national youth conference.
- Engaged in open discussions regarding how the Filipino/a/x Canadians can advocate for meaningful changes at a public policy level, and connected with several professionals, including York PhD candidates.

## **Pinoys on Parliament Annual National Youth Conference (POP) | Kabangka**

**2019-2024**

Ottawa, ON (Remote in 2021 and 2022)

- Actively participated in large-scale conferences (as a delegate, director, and/or committee member) focusing on policy issues affecting Filipino Canadians, as well as networked with academics, professionals, and researchers.
- Leveraged Google Workspace and MS Office tools to contact over 2000 organizations, schedule workshops and meetings, delegate tasks, organize over 500 documents (in English, French, and Tagalog), record over 5000 rows of data, and increase weekly email production by 400%.

## **2022 Mathematics Winter Conference | Canadian Mathematical Society**

**2022**

Toronto, ON

- Actively participated in graduate student-led sessions at the largest mathematics conference in Canada.

## **LANGUAGE PROFICIENCY**

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- **English;** C2 (Reading) | C2 (Writing) | C2 (Speaking) | C2 (Listening)
- **French;** B2 (Reading) | B2 (Writing) | B2 (Speaking) | B2 (Listening)
- **Tagalog;** B2 (Reading) | B2 (Writing) | B2 (Speaking) | B2 (Listening)
- **Ilocano;** B2 (Reading) | B1 (Writing) | B1 (Speaking) | B1 (Listening)
- **Bikol;** A2 (Reading) | A2 (Writing) | A2 (Speaking) | A2 (Listening)

## **REFERENCES**

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### *Academic References*

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**Mr. Georges Monette**, Professor, York University – Department of Mathematics and Statistics

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**Mr. Jude Kong**, Assistant Professor, University of Toronto – Dalla Lana School of Public Health

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### *Professional References*

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