Frank Palma Gomez

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EDUCATION

- **CUNY Queens College** — Queens, NY
  B.A. Computer Science and Mathematics — *May 2022 (Expected)*

PUBLICATIONS

- **Fry, Souillac, Liebovitch, Coleman, et al., 2021** Societies within peace systems avoid war and build positive inter-group relationships. *Humanities and Social Sciences Communications 2021*

EXPERIENCE

- **Santa Fe Institute Undergraduate Complexity Research** — Santa Fe, NM
  Researcher — *June 2021 - Present*
  - Designed unsupervised approach for sarcasm generation by leveraging **language models** (SBERT) and **knowledge graphs** (COMET).
  - Mentored and advised by Tyler Millhouse and Melanie Mitchel.

- **Natural Language Processing Research** — Queens, NY
  Researcher — *Sept 2020 - Present*
  - Developed and implemented a novel method for automatically generating distractors for cloze exercises found in English Second Language (ESL) standardized tests using **Round Trip Neural Machine Translation**.
  - Advised by Alla Rozovskaya while enrolled in CS84000 at the **CUNY Graduate Center**.

- **Jamii** — New York, NY
  Founder / Software Engineer — *May 2020 - Aug 2020*
  - Match making app that allows you to chat with people that your friends match you with. Affiliated with **Mozilla's Builders Incubator**, a highly selective incubator with less than **30 accepted participants** in each cohort.
  - Designed and implemented Jamii's chat and matching features using **Flutter** and **Firebase** in under **3 months**. Attracted over **350 users** from colleges and universities in the east coast.

- **Sustainable Peace Project** — Queens, NY
  Researcher — *Sep 2019 - Present*
  - Applied machine learning techniques to research characteristics that promote peacefulness within nations. Implemented statistical test to demonstrate significance found in degree of peacefulness within nations.
  - Mentored and adviced by Larry S. Liebovitch.

- **CodeReSolve** — Queens, NY
  Club President — *Jan 2019 - Present*
  - Host technical workshops aimed for student interested in topics such as React, HTML/CSS, Javascript, and more.
  - Increased engagement to **60 students per event** through effective social media campaigns despite pandemic.

- **The Cooper Union: Makerspace** — New York, NY
  Software Engineer — *Jul 2017 - Aug 2017*
  - Developed and designed **Eye 2020**, low budget tool for visually impaired users to identify obstacles near vicinity.
  - Optimized the cost of each unit to less than $10 using arduinos, and ultra sonic sensors; Gained proficiency in C++ and embedded systems.

PROJECTS

- **Twitter ChatBot:** ChatBot that answers questions from multiple subjects using Twitter and Wolfram Alpha API.
- **MyGrad:** Reverse Automatic differentiation library implemented from scratch using Python.
- **Tweet2Emoji: Convolutional Neural Net** emoji classifier that predicts emojis for tweets. .

PROGRAMMING SKILLS

- **Languages**: Java, Python, C/C++, Javascript, Dart, R

- **Technologies and Libraries**: Flutter, Firebase, Node.js, Pytorch, Tensorflow, Scikit-learn, Numpy, Google App Engine, LaTeX