Frank Palma Gomez

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EDUCATION

- **CUNY Queens College** — Queens, NY
  B.A. Computer Science / Minor in Mathematics — *Expected Graduation: 05/22*
- **Relevant Coursework:** Machine Learning, Natural Language Processing, Data Structures and Algorithms, Probability and Statistics, Bayesian Statistics, Linear Algebra, Discrete Mathematics, Calculus.

PUBLICATIONS

- **Grammatical Error Correction in Low Resource Settings using Round Trip Translation Confusion Sets** **Frank Palma Gomez** and Alla Rozovskaya. *September 2021. (Working Progress)*

- **Automatic Generation of Distractors for Fill-in-the-Blank Exercises with Round-Trip Neural Machine Translation** Subhadarshi Panda, **Frank Palma Gomez**, Michael Flor, and Alla Rozovskaya. *August 2021. (Under review & Available upon request)*

- **Societies Within Peace Systems Avoid War and Build Positive Inter-group Relationships** Douglas P. Fry, Geneviève Souillac, Larry Liebovitch, Peter T. Coleman, Kane Agan, Elliot Nicholson-Cox, Dani Mason, **Frank Palma Gomez** and Susie Strauss. *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 **commonsense knowledge graphs** (COMET). Mentored 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**.

- **Mozilla Builders Incubator** — New York, NY
  Software Engineer — *May 2020 - Aug 2020*
  - Developed Jamii, a match making app that allows you to chat with people your friends match you with. Work done with **Mozilla's Builders Incubator**, selective incubator aimed for web technologies and apps.
  - Designed and implemented Jamii's chat and matching features using **Flutter** and **Firebase** in under **3 months**

- **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
  Researcher — *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 micro controllers, and ultra sonic sensors.

PROGRAMMING SKILLS

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

- **Technologies and Libraries**: Flutter, Firebase, Node.js, Pytorch, Tensorflow, Scikit-learn, Numpy, Linux, AWS, LaTeX