Frank Palma Gomez

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https://www.knarfamlap.github.io

Education

- **CUNY Queens College** — Queens, NY
  B.A. Computer Science / Minor in Mathematics / Cum Laude — *2018 - 2022*
- **Relevant Coursework:** Machine Learning, Natural Language Processing, Data Structures and Algorithms, Probability and Statistics, Bayesian Statistics, Linear Algebra, Discrete Mathematics, Calculus.

Publications

- **A Low-Resource Approach to the Grammatical Error Correction of Ukrainian**
  Frank Palma Gomez, Alla Rozovskaya, and Dan Roth. *In Submission*
- **Using Round-Trip Machine Translation to Correct Vocabulary and Fluency Errors**
  Frank Palma Gomez and Alla Rozovskaya. *In Submission.*
- **Using Neural Machine Translation for Generating Diverse Challenging Exercises for Language Learners**
  Frank Palma Gomez, Subhadarshi Panda, Michael Flor, and Alla Rozovskaya. *In Submission.*
- **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.
  Proceedings of the ACL Student Workshop 2022
- **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

- **Google** — New York, NY
  Researcher — *Sept 2022 - Present*
  - Developing explanation systems for grammatical error correction using language models (e.g T5, PaLM, etc.) and devising synthetic data generation processes. Mentored by Shankar Kumar.
- **Santa Fe Institute Undergraduate Complexity Research** — Santa Fe, NM
  Researcher — *Jun 2021 - Aug 2021*
  - Designed unsupervised approach for sarcasm generation by leveraging large **language models** and **knowledge graphs**. Advised by Tyler Millhouse and Melanie Mitchel.
- **Queens College NLP Research** — Queens, NY
  Researcher — *Sept 2020 - Present*
  - Developed a novel approach 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
- **Queens College Anthropological Research** — Queens, NY
  Researcher — *Sept 2019 - Sept 2020*
  - Applied machine learning techniques to explore characteristics promoting peacefulness within nations. Implemented modeling and statistical test to demonstrate significance in degree of peacefulness within nations. Advised by Larry S. Liebovitch.

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