

Joshua Chaz Rivera

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Location: Stuttgart, Germany → Brest, France

Research interests

Semantics, Machine Learning, Low-Resource languages, Few-shot learning,
Figurative Language, LLMs, Diffusion Models, Machine Translation

Education

- 2025 – Present **IMT Atlantique** – Brest, France
PhD in Machine Learning
Mentors: Vincent Gripon, Bastien Padeloup
- 2022 – 2025 **University of Stuttgart** – Stuttgart, Germany
M.Sc. in Computational Linguistics
Mentors: Alexander Fraser, Sabine Shulte im Walde
Thesis: Mechanisms of Transformers in Metaphor Detection and Translation
- 2018 – 2022 **New York University (NYU)** – New York, USA
B.A. in Mathematics & Linguistics (Double Major)
Mentors: Christopher Collins, Dimitrios Giannakis

Research Experience

- Dec. 2023 – Mar. 2025 **Ubiquitous Knowledge Processing (UKP) Lab, TU Darmstadt**
Legal NLP Research Assistant (Hilfswissenschaftler) with Lena Held
- May 2022 – Aug. 2023 **Weill Cornell Medicine, Cornell University**
Medical NLP Research Assistant with Michael Chary
- Sept. 2021 – May 2022 **Department of Linguistics, NYU**
Independent Fieldwork with Christopher Collins
- Nov. 2020 – Aug. 2021 **Courant Institute of Mathematical Sciences, NYU**
Research Assistant with Dimitrios Giannakis

Talks

- January 2025 “Mechanisms of Transformers in Metaphor Detection and Translation”
Masters Thesis Defense
- May 2022 “Quantities and Intensifiers in the Pekigbe Dialect of Ewe”
48th Undergraduate Research Conference (NYU)

April 2022 “Quantities and Intensifiers in the Pekigbe Dialect of Ewe”
Cornell Undergraduate Linguistics Conferences (CULC16)

Poster Presentations

August 2023 Joshua Rivera & Michael Chary “An opioid by any other name. Detecting novel opioids on social media using linguistic features”
North American Congress of Clinical Toxicology (NACCT) 2023

March 2023 Joshua Rivera & Michael Chary “Geographic Variation of Opioid Use Discussions Tracks Geographic Variation in Opioid-Associated Use”
2023 ACMT Annual Scientific Meeting – San Diego, CA

Awards and Grants

Nov. 2021 NYU Dean’s Undergraduate Research Fund (DURF)-\$1000
Awarded for fieldwork on the Pekigbe dialect of Ewe

Technical skills

Programming languages

Proficient in: Python, Java, HTML, JavaScript, Matlab, R, Bash

Libraries

Pytorch, Scikit-learn, SpaCy, NLTK, Huggingface, LangChain

Software

LaTeX, Praat, Excel, Linux, Git, ELAN, Jupyter Notebooks

Languages

English (Native)

Spanish(Fluent)

German(Intermediate)