### Craig Messner

#### **CURRENT POSITION**

#### Lecturer

JOHNS HOPKINS CENTER FOR DIGITAL HUMANITIES

2023 - Present

I apply cutting edge techniques drawn from computational fields to humanities research questions and teach courses on the design and implementation of humanities machine learning experiments.

#### **EDUCATION**

### Ph.D. in English Literature

University of California-Los Angeles

2012 - 2021

Dissertation: Speech as Writing: Literary Dialect Orthography in the United States 1790-1930

B.A. in English 2008 – 2012 Highest Honors University of Illinois Urbana-Champaign

2015

#### Publications And Presentations

**Publication:** "Pairing Orthographically Variant Literary Words to Standard Equivalents Using Neural Edit Distance Models" *LaTech-CFL* 2024

**Presentation:** "How well do pretrained LLMs handle variant literary orthography?" *New Directions in Text as Data (TADA)* 2023

**Presentation:** "Towards a History of Variant Literary Orthography: BERT-based Normalization of 19th Century Spelling" *ACH* 2023

**Presentation:** with Sam Backer, "Blackface and Romance: Computing Cultural Change in 19th Century Sheet Music" *AHA* 2024

**Presentation:** "Pretrained Transformer Models for the Alignment of Orthographic Variants" *MASC-SLL* (2022)

Presentation: "BERT: Structure and Knowledge" CLSP Large Language Model Bootcamp (2022)

**Publication:** "Pym's Games" in Poe Studies: History, Theory, Interpretation (Volume 47)

**Presentation:** "Poe, Gaming and the Remediation of Horror Tropes" *UC Davis Contours of Algorithmic Life conference* (2014)

#### LEADERSHIP AND SERVICE

Participant: UCLA Mellon Seminar - "Digital Gateway."

Reviewer: LaTeCH-CLfL-2024

Reviewer: 8th Workshop on Representation Learning for NLP

2023

Panel moderator: UCLA EPIC Humanities Now: Transformative Teaching conference, Innovative
Teaching with Technology Panel

2019

Graduate student member: UCLA faculty search committee (New Methods in Literary Criticism) 2018

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#### Honors and Awards

UCLA Department of English Dissertation Fellowship UCLA Graduate Summer Research Mentorship Fellowship

2019-2022 2013 AND 2014

#### RESEARCH AND TEACHING

My primary research interests are 19th century American literature, digital and computational humanities, and machine learning. My work aims to apply cutting edge techniques from computer science and computational linguistics to literary research and pedagogy.

My current project employs pretrained machine learning language models to align words rendered in nonstandard literary orthography with their "standard" equivalents. This research has implications both in computer science, where researchers have previously only evaluated these models' orthographic abilities in the context of unintentional misspelling and modern variations, and in literary criticism, where a systematic author-by-author investigation of literary orthographic variation in the 19th and early 20th century has yet to be performed. This is an extension of my dissertation, which analyzed orthography using a more traditional computational perspective.

My research also centers on the use of simulation and games for teaching. This has included writing a video game translation of Poe's short story "William Wilson" which was subsequently reviewed by Amber LaPiana in Poe Studies 47, "Playing Poe," as well as interactive simulations of computational learning systems.

#### PRIOR EXPERIENCE

#### Postdoctoral Researcher

Sept. 2021 - July 2023

JOHNS HOPKINS CENTER FOR DIGITAL HUMANITIES

- · Applied cutting-edge machine-learning techniques to research questions in the humanities
- Taught a machine-learning focused computational humanities course for advanced undergraduate and graduate students.

## Teaching Assistant 2015 - 2021, 2013 - 2014

UCLA DEPARTMENT OF ENGLISH

- Courses taught include early United States literature, science fiction, survey courses covering 19th and 20th century anglophone literature and writing composition
- Designed and solo taught literature-centric composition classes for non-major students

#### Teaching Assistant

UCLA DIGITAL HUMANITIES PROGRAM

Sept. 2018 – Dec. 2018

 Facilitated technical lab sessions for an introduction to digital humanities class. Designed technical and theoretical instructional materials

# Research and Instructional Technology Consultant $_{\rm 2014-2015}$

UCLA HUMANITIES TECHNOLOGY

- Supported a Moodle-based educational content management system
- Trained faculty in the use of software tools for use in both pedagogy and research
- Provided programming and data support for faculty research projects, including authoring a full-stack solution for play text annotation in Python (Django) and Javascript