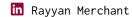
Rayyan Merchant

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http://merchantrayyan.github.io/

y @rayyanmerchan





Education

2019 - 2023 (expected)

University of Florida, Gainesville, FL B.Sc. Computer Science, B.A. Linguistics GPA: 3.60/4.00

Apr. - Aug. 2022

RWTH Aachen, Aachen, Germany Spring Semester Exchange

Research Experience

2019-Present

■ Speech, Lexicon, and Modeling Laboratory

Undergraduate Researcher (https://slam.phil.hhu.de) Supervisor: Dr. Kevin Tang

- Utilizing neural models to attempt translation through transliteration between Iranian/Afghan Persian and Tajik Persian, written in the Perso-Arabic and Tajik-Cyrillic scripts, respectively
- Examining ways to computationally detect differences between dialects of Spanish through analyzation of Spanish-language corpora with text collected from the Internet and subtitles
- Wrote code in Python to automate Internet text mining, as well as filter, split, and analyze corpora

Research Presentations

- Rayyan Merchant and Kevin Tang, "Connecting the Persian-speaking World through Transliteration.," The 3rd North American Conference in Iranian Linguistics, Los Angeles, CA., Apr. 2023, 20-minute talk with 10-minute QA.
- **Rayyan Merchant** and Kevin Tang, "Translating through transliteration: the case of Tajik Persian.," The 98th Annual Meeting of the *Linguistic Society of America*, Denver, Colorado., Jan. 2023, Poster available to view online.
- Rayyan Merchant, Kevin Tang, and Akhilesh Ramarao, "Machine Transliteration between two Persian Dialects The Case of Farsi and Tajiki.," 32nd Tagung der Computerlinguistik-Studierende (TaCoS), Düsseldorf, Germany., Jun. 2023, 20-minute talk with 10-minute QA.

Projects

2021

A Simulation Study Exploring the Role of Pronouns in Gender Stereotypes

LIN4930 (Comp. Ling.) Final Project

- With a team member, brainstormed, planned, and carried out an original research project.
- Investigated the impact of pronouns on gender bias by making gendered pronouns genderneutral (singular 'they' and neopronoun 'ze') and measuring the association between gendered words and occupations with word embeddings.

Additional Experience

June. 2023 - Present

Machine Learning for Endangered Language Documentation (MELD) Laboratory

Paid Annotation Assistant (8-20 hrs/week)

• Annotating African American oral histories for grammatical features of African American English, to be used for NLP tools for African American English

Aug. 2021 - Mar. 2022

George A. Smathers Libraries at U.F.,

Paid Transcription Assistant (20 hrs/week)

 Manually transcribed, organized, and summarized interviews as part of the Native American Oral History Project funded by the Doris Duke Charitable Foundation.

Skills

Languages

English (native), Spanish (proficient), Portuguese (proficient), German (proficient), Persian (proficient), Turkish (conversational), Urdu (conversational), Konkani (conversational)

Coding

Python, C++, Java R, sql

Libraries

NLTK, Pandas, ScraPy, JoeyNMT, Matplotlib, NumPy, SpaCy

Awards

2023 Summer Undergraduate International Research Program

\$5,000 scholarship to conduct thesis research at Heinrich-Heine University in Germany

2022,2023 Wentworth Travel Scholarship

\$500 scholarship from UF Honors for conference travel and studies at the Belgian Carillon School

2021 University Scholars Program

One of 200 students across UF selected to work one-one-one with a faculty member on a research project of the student's choice with a \$1,750 stipend

2020 Boren STEM Summer Scholarship

\$8,000 State Department scholarship to study Tajik Persian in Tajikistan Canceled due to COVID

2019 University Research Scholars Program

Invitation-only introductory research program at UF

2018 **Benacquisto Scholarship**

Full-ride scholarship as National Merit Finalist for estimated cost of attendance at UF

National Security Language Initiative for Youth (NSLI-Y)

State Department scholarship to study Tajik Persian in Tajikistan

2017 **Eagle Scout**

Miscellaneous Experience

Volunteering

2023-Present

Samuel Proctor Oral History Program,

- Conducting and manually transcribing oral history interviews
- Manually annotating transcripts for African American English grammatical features

Certification

2020

Advanced Low in Tajiki (Tajik Persian).

Awarded by the American Council on the Teaching of Foreign Languages

Music

2021-Present

Carillon

Play the carillon in UF's Century Tower under the tutelage of Dr. Laura Ellis. Also received instruction from Luc Rombouts of the Belgian Royal Carillon School.

2015-2019

Classical Voice

Participated in high school choir all four years, making it to the Florida All-State Concert Choir twice and achieving Superiors at Florida Vocal and Ensemble three times.