Rui Hu

CONTACT INFORMATION	*Email*: c@hiruihu.com *Website*: hiruihu.com

EDUCATION

Northern Arizona University, Flagstaff, AZ   08/2019 - 04/2021
M.A. in Teaching English as a Second Language (TESL)
Emphasis: Applied Linguistics
- Graduated with a GPA of 3.82/4.00 (Top 2%)
- High pass in comprehensive exam (overall score: 2.57; range of scores: 1.65-2.66)
- Established solid understanding regarding linguistics, including phonetics, phonology, morphology, syntax, semantics, pragmatics, discourse analysis, sociolinguistics, corpus linguistics, and natural language processing
- Created and processed datasets, corpora, and models for linguistics-associated tasks
- Analyzed a large amount of language data (written and spoken), identified the best practices and improved procedures for linguistic and computational tasks

The Chinese University of Hong Kong, Shatin, Hong Kong   08/2017 - 05/2018
M.A. in Translation
- Graduated with a GPA of 3.338/4.000 (Top 3%)
- Automated computer-assisted translation and text analysis
- Conducted translation and interpretation tasks of all types of registers

Hunan University, Changsha, Hunan, China   09/2013 - 06/2017
B.A. in English
Second Course Track: Computer Science (credit-based)
Emphasis: Applied Linguistics
Thesis: A Corpus-based Stylistic Study of Advertisements and Business Correspondence
- Graduated with Honors, with a GPA of 4.03/4.50 (Top 1%)
- Awarded National Scholarship twice by the Ministry of Education of China

Arizona State University, Tempe, AZ   08/2016 - 05/2017
Visiting Student - English (Literature)
- Achieved a GPA of 4.00/4.00 (Top 1%)
- Included in the Dean's List in Fall 2016 and Spring 2017
- Honored as the Face of ASU

AWARDS AND HONORS

Graduate Teaching Assistantship   2019-2021
     Northern Arizona University, US$68,000

Teaching Assistant Award   2019
     Washington University in St. Louis - ALLEX Teacher Training Institute

Chinese Government Scholarship   2016-2017
     China Scholarship Council, US$13,500
     Certificate #201606135107

First Prize at the 3rd National Business English Practice Contest, Final   2015
     Ministry of Education, China, CNY1,000/US$150

National Scholarship   2014-2015 & 2013-2014
     Ministry of Education, China
     Certificates #2015-13881, #2014-13895; awarded twice, CNY16,000/US$2,500 in total

Merit Student (Triple-A Student)   2014-2015 & 2013-2014
     Hunan University, Changsha, Hunan, China
     Certificates #HDSHXS2015742, #SHXS20140760; honored twice

RESEARCH HIGHLIGHTS	**Building a Twitter Scraper & a Prototype Dictionary-based Sentiment Analyzer**

Northern Arizona University, individual work, 2021
Course: Programming for Text Analysis
Brief Introduction: Created several Python programs and collected Tweets (N = 3,200) from Twitter and built a corpus of Tweets, and also a prototype dictionary-based sentiment analyzer and created a scoring system of the sentiment.

Second Language (L2) English Speaker Analysis
Northern Arizona University, individual work, 2020
Course: Introduction to Language and Linguistics
Brief Introduction: Interviewed a non-native English speaker (N = 1) and analyzed the speech data at the levels of phonetics and phonology, morphology, syntax, and semantics/lexicon

Characteristics of a Reading Comprehension Assessment:
 Measures of Validity and Reliability
Northern Arizona University, collaborative work, 2020
Course: Assessment for Second Language Skills
Brief Introduction: Developed a test to measure native and non-native English speakers' reading comprehension in the context of academic English (N = 26)

Native and Non-native Speakers' Perception of American English Dialects
Northern Arizona University, collaborative work, 2020
Course: Sociolinguistics
Brief Introduction: Discussed to what extent both native and non-native speakers perceive different dialects in the US regarding correctness and pleasantness (N = 54)

PROJECTS

Natural Language Processing:
- A prototype poetry generator based on Markov model
- A prototype text classifier based on Markov model
- A prototype sentiment analyzer with logistic regression
- A prototype recommender system using non-negative matrix factorization (NMF) and cosine similarity
- Discovering topics (interpretable features) in Wikipedia articles with NMF
- Clustering Wikipedia articles and titles based on a given TD-IDF array in CSR matrix format with k-means
- Latent semantic analysis (LSA) visualization with singular value decomposition (SVD)

Machine Learning:
- Predicting credit card approvals
- Clustering fish species using k-means
- Clustering grain seeds using k-means, hierarchical clustering, and t-distributed stochastic neighbor embedding (t-SNE)
- Predicting handwritten digits: a multi-class classification with k-nearest neighbors (KNN)
- Predicting party affiliation: a binary classification with KNN
- Predicting whether a given Pima Indian will have diabetes: a binary classification with KNN
- Pima Indian diabetes classification using logistic regression
- Discovering variance of the PCA features in fish species
- De-correlating grain seed data and dimension reduction with PCA
- Life expectancy prediction with linear regression

Data Science (Data Analysis and Visualization):
- Analyzing TV data
- Investigating Netflix movies and guest stars in the office
- The Android app market on Google Play

TEACHING EXPERIENCE	**Academies of Mathematics and Science (AMS), South Mountain**, Phoenix, AZ

Foreign Language Teacher   07/2021 - Present
- Teach Mandarin Chinese at K-8 levels as a full-time teacher
- Use measurable data to track student performance and enrich their progress with visible results
- Stick to district and Arizona curriculum standards to teach students above and below grade-level through a differentiated approach

Northern Arizona University (NAU), Flagstaff, AZ
Instructor of Chinese   08/2019 - 04/2021
- Taught CHI 101, 102, 201, and 202 as a part-time instructor
- Assisted in curriculum design and management
- Designed curriculum and created test items
- Received exceptional student satisfaction rate

Washington University in St. Louis (WUSTL), St. Louis, MO
WUSTL-ALLEX Teacher Training Institute Practice Teacher   06/2019 - 07/2019
- Co-taught CHI 101 in Summer 2019
- Underwent intensive full-time training included basic principles of effective Chinese language pedagogy, classroom teaching techniques, the linguistic analysis of Chinese

PROFESSIONAL EXPERIENCE

Center for International Education, NAU, Flagstaff, AZ
Graduate Assistant, *part-time*   08/2019 - 05/2021
- Worked primarily as an international social media content specialist and produced posts regularly on NAU official social media platforms such as WeChat, Weibo, Chinese TikTok (*Douyin*) and RED (*Xiaohongshu*)
- Developed marketing and promotional materials and participated in social media operation by ensuring adherence to NAU social media guidelines and procedures
- Completed other assigned tasks, including but not limited to organizing materials and helping incoming international students find solutions and resources to ease their transition

1000 Internet and Culture Studio, Hunan University (HNU), Changsha, China
Full Stack Developer, *part-time*   12/2013 - 06/2017
- Worked in the core developer team on several projects involving comprehensive expertise in full stack development. Highlight projects include: *Grades Lookup System*, *Incoming Student Orientation*, and *HNU Online Bulletin Board*
- Collaborated closely with technical and non-technical team members, especially designers and content specialists to delivered up-to-date website
- Performed code optimization and code refactoring; built simple, sustainable, and versatile code

Global Launch, Arizona State University (ASU), Tempe, AZ
Chinese - English Interpreter & Translator, *part-time*   09/2016 - 12/2016
- Conducted Chinese-English consecutive interpretation and translation for the visiting scholars from China, PAC-12 professional coaches and experts from ASU, National Collegiate Athletic Association (NCAA) and Pacific-12 (PAC-12)

INTERNSHIP AND VOLUNTEERING

Yuelu Academy, Changsha, Hunan, China
Chinese History Specialist, Translator, and Interpreter   06/2016

Emperor Qin's Mausoleum Site Museum, Lintong, Xi'an, Shaanxi, China
Chinese History Specialist, Translator, and Interpreter   07/2015 - 08/2015

The French Institute, Embassy of France in China, Beijing, China
Community Interpreter and Tour Guide   12/2014

Government of Hunan Province, Changsha, Hunan, China
Community Interpreter at the China (Changsha) Mineral and Gem Show   05/2014

INTERNAL SERVICE	**Master of Arts Public Relations Officer** Graduate Student Association of TESL and Applied Linguistics (GSALL) Northern Arizona University, 2019-2021 **Internal Vice-President** Postgraduate Association of the Chinese University of Hong Kong (CUPSA) The Chinese University of Hong Kong, 2017-2018
CERTIFICATES	**Unsupervised Learning in Python** Certificate #21442879 DataCamp, 01/2022 - No expiration **Supervised Learning with scikit-learn** Certificate #21322579 DataCamp, 10/2021 - No expiration **Data Science: Natural Language Processing (NLP) in Python** Certificate #UC-c89dc78f-727f-470b-9759-d774a7758e27 Udemy, 04/2021 - No expiration **Programming in C - Level II** Certificate #24424303089153 Ministry of Education of China, 03/2015 - No expiration **Putonghua (*Mandarin*) Proficiency Test - Level 1B** Certificate #4314034000159 Ministry of Education of China, 04/2014 - No expiration **Advanced Application of Microsoft Office - Level II** Certificate #65394304928050 Ministry of Education of China, 03/2014 - No expiration
MEMBERSHIPS	Association for Computational Linguistics (ACL) American Council on the Teaching of Foreign Languages (ACTFL) TESOL International Association (TESOL) Chinese Language Teachers Association (CLTA)
LANGUAGES	**Native**: English, Chinese (Mandarin, Cantonese, Xiang) **Intermediate**: Spanish, French **Elementary knowledge**: Japanese, Korean, Malaysian, Indonesian **Ancient language (reading)**: Classical Chinese

SKILLS	**Programming**:
	  Languages: Python, C/C++, Java, Swift, Go
	  Environment: Desktop, Server, Cloud: Amazon Web Services (AWS), Google Cloud
	  Operating system: Linux: Ubuntu & CentOS + terminal commands, macOS, Windows
	  Version Control: Git (GitHub)
	Analysis:
	  Data analysis: Excel, SPSS, Tableau, R
	  Machine learning: Scikit-learn, SciPy, PyTorch, Tensorflow, Keras
	Web Development:
	  Front end: HTML, CSS, JavaScript, jQuery, Angular, Vue.js
	  Back end: PHP, node.js, Apache
	  Database: mySQL, PostgreSQL, MongoDB
	Content Processing:
	  Text: Microsoft Office, LaTeX, XML
	  Multimedia: Audition, Photoshop, Apple Final Cut Pro

DATE COMPLIED	Friday, January 21, 2022