

Rui Hu

CONTACT INFORMATION	<i>Email:</i> mailto:c@hiruihu.com <i>Website:</i> hiruihu.com	
EDUCATION	Northern Arizona University , Flagstaff, AZ M.A. in Teaching English as a Second Language (TESL) <i>Emphasis:</i> Applied Linguistics <ul style="list-style-type: none">- 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 M.A. in Translation <ul style="list-style-type: none">- 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 B.A. in English <i>Second Course Track:</i> Computer Science (credit-based) <i>Emphasis:</i> Applied Linguistics <i>Thesis:</i> A Corpus-based Stylistic Study of Advertisements and Business Correspondence <ul style="list-style-type: none">- 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 Visiting Student - English (Literature) <ul style="list-style-type: none">- 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	08/2019 - 04/2021 08/2017 - 05/2018 09/2013 - 06/2017 08/2016 - 05/2017
AWARDS AND HONORS	Graduate Teaching Assistantship Northern Arizona University, US\$68,000 Teaching Assistant Award Washington University in St. Louis - ALLEX Teacher Training Institute Chinese Government Scholarship China Scholarship Council, US\$13,500 Certificate #201606135107 First Prize at the 3rd National Business English Practice Contest, Final Ministry of Education, China, CNY1,000/US\$150 National Scholarship Ministry of Education, China Certificates #2015-13881, #2014-13895; awarded twice, CNY16,000/US\$2,500 in total Merit Student (Triple-A Student) Hunan University, Changsha, Hunan, China Certificates #HDSHXS2015742, #SHXS20140760; honored twice	2019-2021 2019 2016-2017 2015 2014-2015 & 2013-2014 2014-2015 & 2013-2014

RESEARCH HIGHLIGHTS	<p>Building a Twitter Scraper & a Prototype Dictionary-based Sentiment Analyzer</p> <p>Northern Arizona University, individual work, 2021</p> <p><i>Course:</i> Programming for Text Analysis</p> <p><i>Brief Introduction:</i> 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.</p> <p>Second Language (L2) English Speaker Analysis</p> <p>Northern Arizona University, individual work, 2020</p> <p><i>Course:</i> Introduction to Language and Linguistics</p> <p><i>Brief Introduction:</i> 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</p> <p>Characteristics of a Reading Comprehension Assessment:</p> <p><i>Measures of Validity and Reliability</i></p> <p>Northern Arizona University, collaborative work, 2020</p> <p><i>Course:</i> Assessment for Second Language Skills</p> <p><i>Brief Introduction:</i> Developed a test to measure native and non-native English speakers' reading comprehension in the context of academic English ($N = 26$)</p> <p>Native and Non-native Speakers' Perception of American English Dialects</p> <p>Northern Arizona University, collaborative work, 2020</p> <p><i>Course:</i> Sociolinguistics</p> <p><i>Brief Introduction:</i> Discussed to what extent both native and non-native speakers perceive different dialects in the US regarding correctness and pleasantness ($N = 54$)</p>
PROJECTS	<p>Natural Language Processing:</p> <ul style="list-style-type: none"> - 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) <p>Machine Learning:</p> <ul style="list-style-type: none"> - 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 <p>Data Science (Data Analysis and Visualization):</p> <ul style="list-style-type: none"> - 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 fluency: English, Chinese (Mandarin, Cantonese, Xiang)

Intermediate level: Spanish, French

Elementary knowledge: Finnish, Swedish, 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 and visualization: Excel, SPSS, Tableau, R

Machine learning: Scikit-learn, SciPy, PyTorch, Tensorflow, Keras

Web Application 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, L^AT_EX, XML

Multimedia: Audition, Photoshop, Apple Final Cut Pro