

CONTACT *Email:* [c@hiruihu.com](mailto:c@hiruihu.com)  
INFORMATION *Website:* [hiruihu.com](http://hiruihu.com)

**North 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%)  
- 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  
- Engaged in text labeling and tagging and demonstrated the ability to identify errors and perform edits / annotation

**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

<b>Graduate Teaching Assistantship</b>	2019-2021
Northern Arizona University, \$68,000	
<b>Teaching Assistant Award</b>	2019
Washington University in St. Louis - ALLEX Teacher Training Institute	
<b>Chinese Government Scholarship</b>	2016-2017
China Scholarship Council, \$13,500	
Certificate #201606135107	
<b>First Prize at the 3rd National Business English Practice Contest, Final</b>	2015
Ministry of Education, China, CNY1,000/\$150	
<b>National Scholarship</b>	2014-2015 & 2013-2014
Ministry of Education, China	
Certificates #2015-13881, #2014-13895; awarded twice, CNY16,000/\$2,500 in total	
<b>Merit Student (Triple-A Student)</b>	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:**

- 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	<b>Master of Arts Public Relations Officer</b> Graduate Student Association of TESL and Applied Linguistics (GSALL) Northern Arizona University, 2019-2021
	<b>Internal Vice-President</b> Postgraduate Association of the Chinese University of Hong Kong (CUPSA) The Chinese University of Hong Kong, 2017-2018
CERTIFICATES	<b>Unsupervised Learning in Python</b> Certificate #21442879 DataCamp, 01/2022 - No expiration
	<b>Supervised Learning with scikit-learn</b> Certificate #21322579 DataCamp, 10/2021 - No expiration
	<b>Data Science: Natural Language Processing (NLP) in Python</b> Certificate #UC-c89dc78f-727f-470b-9759-d774a7758e27 Udemy, 04/2021 - No expiration
	<b>Programming in C - Level II</b> Certificate #24424303089153 Ministry of Education of China, 03/2015 - No expiration
	<b>Putonghua (Mandarin) Proficiency Test - Level 1B</b> Certificate #4314034000159 Ministry of Education of China, 04/2014 - No expiration
	<b>Advanced Application of Microsoft Office - Level II</b> 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	<b>Native:</b> English, Chinese (Mandarin, Cantonese, Xiang)
	<b>Intermediate:</b> Spanish, French
	<b>Elementary knowledge:</b> Japanese, Korean, Malaysian, Indonesian
	<b>Ancient language (reading):</b> Classical Chinese
SKILLS	<b>Programming:</b>
	<b>Languages:</b> Python, C/C++, Java, Swift, Go
	<b>Environment:</b> Desktop, Server, Cloud: Amazon Web Services (AWS), Google Cloud
	<b>Operating system:</b> Linux: Ubuntu & CentOS + terminal commands, macOS, Windows
	<b>Version Control:</b> Git (GitHub)
	<b>Analysis:</b>
	<b>Data analysis:</b> Excel, SPSS, Tableau, R
	<b>Machine learning:</b> Scikit-learn, SciPy, PyTorch, Tensorflow, Keras
	<b>Web Development:</b>
	<b>Front end:</b> HTML, CSS, JavaScript, jQuery, Angular, Vue.js
	<b>Back end:</b> PHP, node.js, Apache
	<b>Database:</b> MySQL, PostgreSQL, MongoDB
	<b>Content Processing:</b>
	<b>Text:</b> Microsoft Office, L <sup>A</sup> T <sub>E</sub> X, XML
	<b>Multimedia:</b> Audition, Photoshop, Apple Final Cut Pro
DATE COMPLIED	Monday, January 17, 2022