# Henry G. Wolf VII

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### **Profile**

PhD Candidate and Senior Data Scientist with several years of formal research experience involving data science, machine learning, experimental design, and project management. Currently working while completing my dissertation involving deep learning modeling of the bilingual brain during reading. Several years of international experience living, teaching, and authoring educational materials throughout Japan and South Korea. Avid mountain climber.

#### **Skills**

R	Python	AI/ML	Computer Vision	Japanese
SQL	TensorFlow	Research	Project Management	Chinese

## **Business Experience**

#### Senior Data Scientist

Advertising Research Foundation

03.2018-PRES

- Worked directly under the CRO in the Research department. Critically reviewed research proposals and made recommendations to senior management.
- Managed several research projects examining the validity of advanced customer segments, working with outside research organizations and data management platforms. Performed analysis on additional projects (e.g. examining the effectiveness of six-second ads).
- Made data science hardware purchasing recommendations and set up a Linux development environment. Wrote scripts for cleaning, visualizing, and analyzing data for both original research and validation of partner research.
- Participated in the cognition and analytics research councils. Wrote peer-reviewed journal articles, literature reviews, and research summaries for business leaders. Researched and wrote reports on ethics and codes of conduct in advertising, research, artificial intelligence.

- Implemented models and visualized data to prioritize leads that would be contacted by the sales team. Communicated with members of the sales team and with all layers of management to explain the results of the analyses.
- Implemented a system for tracking the effectiveness of advertising buys, lead quality, and sales personnel performance with regards to sales in order to find bottlenecks in the process. Retrieved data from multiple sources, cleaned and combined the data, and performed machine learning analyses. Communicated the results of the system to upper management.

## **Research Experience**

Doctoral Researcher	University of Connecticut	08.2014-04.2019
Statistics Consultant	and Haskins Laboratories	(est.)

- Applied for and received research fellowships from the National Science Foundation,
  National Institute of Health, and U.S. Department of State.
- Implemented thousands of computational models of dyslexic reading using hyperparameter manipulation in TensorFlow, parallelized across multiple GPUs. Matched models to human subjects with various types of developmental dyslexia. Tested educational interventions on models to provide personalized interventions for the human subjects. Performed network analyses to understand how hyperparameters affect results. Dissertation research involves using convolutional neural networks for image recognition to extend this research beyond dyslexia among monolingual English readers to readers of all languages. Presented preliminary results internally and at NIPS 2017.
- Designed and implemented behavioral experiments of visual word recognition. Trained a team of several RAs responsible for collecting human subject data. Cleaned, visualized, and analyzed data using mixed effects regression in R. Produced manuscript for publication and presented the results publicly.
- Founded and led the Data Science Working Group and the Deep Learning Research Group to provide supplemental training in these areas to graduate students. Successfully applied for grant funding to purchase computational resources, attend conferences, and invite visiting researchers to the University of Connecticut. Developed curricula and taught workshops on statistics, data science, and deep learning.
- Advised psychology department faculty and graduate students in statistical methods.

Additional experience in international education and marketing available upon request.

## Education

PhD in Language and Cognition	University of Connecticut	2014-PRES
Deep Learning Summer School	Université de Montréal	2017
Data Science Summer School	École Polytechnique	2017
Critical Language Scholars Program	Soochow University	2015
MA in Teaching English (TESOL)	Columbia University	2009-2011
BS in International Business and Marketing	University of Dayton	2002-2006