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# Ryan Harper
Data Scientist

## Skills

Sorting algorithms and multiprocessing, big data, research method, research design,
data preprocessing, word vectorization, neural nets (keras, tensorflow), statistics,
Python ( numpy, sklearn, statslab, nltk, re, matplotlib), natural language processing, data engineering/visualization

## Data Science Projects

**Thinkful Forecasting Capstone:** kimrharper.github.io/project-bikeforecasting.html
Regressive modeling of bike accidents in Portland, Oregon to create a baseline prediction model

*Thinkful Exploratory Analysis Capstone*: https://kimrharper.github.io/project-moviegenre.html
An analysis of profits for blockbuster movies using required procedures for the scientific method to test and visualize samples.

*Thinkful Research Design Capstone*: https://kimrharper.github.io/project-heartdisease.html
Heart disease flag and classification using anonymized patient health indicators.

*Thinkful NLP Capstone*: https://kimrharper.github.io/project-lang8-1.html
Model-based predictions of students' first language based on his/her second language syntax structure.

*Data Science Group Word2Vec Project*: https://kimrharper.github.io/project-bgreview.html
Word2Vec Clustering Analysis of Board Game Reviews

## Data Science Group Projects

**Gap-CV Contributor**
*Portland, Oregon*                                                                                          *July 2018 - Present*

- *Developed notebook tutorial for pushing OCR data set into Keras NN  with Gap-CV*
- *Weekly face-to-face meetings, unit test with pytest, and pull requests*

**Portland Data Science Meetup Organizer**
*Portland, Oregon*                                                                                          *Jul  2018 - Present*

- *Located rooms for weekly meetups (PSU Business Accelerator, PSU Library, Public Library, Code schools)*
- *Innovated, scraped, and cleaned OCR Chinese Historical Character data set for image analysis unit (est Nov 2018-Jan 2019)*

**Portland Data Science Meetup Participant**
*Portland, Oregon*                                                                                          *Jan 2018 - Present*

- *PDOT Forecasting (Jun-Jul):* Accomplished predictive polynomial linear regression model for 2016 fatal car accidents.
- *Portland Trimet Schedule (May-Jun):* Accomplished data visualization of trends in trimet stop delays per route.
- *US Natural Disaster Patterns (Apr-May):* Created geoplots of weather patterns to find natural disaster hotspots in the U.S.
- *Sector ETF Forecasting (Mar-Apr):* Accomplished 2017 sector ETF forecasting using 2017 macroeconomic indicators.
- *Wikipedia Forum Sentiment Analysis (Jan-Apr):* Accomplished automatic flagging of toxic comments in Wikipedia comments.

## Work History

**Office Assistant**                                                                                          *Spring 2017*
*International Special Programs, PSU, Portland, OR*
- Created a curriculum for new elective course: Includes lesson plans and accompanying materials
- Coordinated between teachers, host family, program organizers and bus drivers to ensure events stay on schedule

**English Language Trainer**                                                      *Mar 2013 - Jun 2017*
*GoFluent, Portland, OR*
- Lead 90-minute workshops for business ESL on team management, persuasive conversation, and business presentations
- Structured grammar and pronunciation instruction for clients in Europe, South America, the Middle East, Africa and Asia
- Held diagnostic tests for new employees joining our clients

**Graphic Design Intern**                                                                          *2012*
*PNW Tax School, Beaverton, OR*
- Front-end graphic design for website (HTML and JS)
- Created weekly Tax School newsletter (including layout, content, and design
- Post production on 20 webcast/webinar videos for PDX Tax School

**Junior High School English Teacher and Assistant English Teacher**              *2008-2011*
*Japanese Exchange and Teaching Program, Kamiichi, Toyama, Japan*
- Designed and implemented English grammar lessons for 7th-9th grade students (around 15 classes per week)
- Led special sessions on cultural differences, American slang, American culture, etc.
- Prepared students for the annual Toyama Junior HIgh School Speech Competition

**Elementary School Teacher**                                                              *2008-2011*
*Kamiichi Town Hall and Board of Education, Kamiichi School District*
- Designed and implemented engaging English lessons for 1st-6th grade students
- Created syllabi for the English courses at each of six different elementary schools in Kamiichi
- Frequent communication with 30+ native Elementary teachers and more than 800 students each year

**Community English Teacher**                                                              *2008-2011*
*Japanese Exchange and Teaching Program, Kamiichi, Toyama, Japan*
- Coordinated two conversational (beginner and advanced) classes for ages 18-80
- Led special sessions on cultural differences, American slang, American culture, etc.
- Prepared students for the annual Toyama Junior HIgh School Speech Competition

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## Education

**PORTLAND STATE UNIVERSITY**
*MA TESOL*                                                                    *Sep 2015 - Jun 2017*
GPA: 3.89 / 4.0
- Core Topics: Syntax, Phonetics, Phonology, Cognitive Linguistics, Research and Design, Methods, Language Acquisition
- Specialized in curriculum assessment and curriculum design for ESL and EFL corporate/public institutions

**THINKFUL**                                                                        Apr 2018 - *Oct 2018*
*Data Science Program*
- Completed 5 Data Science capstones using statistical analyses, supervised/unsupervised learning, and the research method
- Mentored by a data science professional to understand industry standard practices and standards

**PDX CODE GUILD**                                                                  Nov 2017 - *Feb 2018*
*Full Stack Program*
- Coded in  JS, Python (with PEP 8 standards), HTML, CSS, Django, and Github for group and individual projects
- Created full stack ESL blog themed website with PostgreSQL database for backend hosted by AWS

**DEPAUW UNIVERSITY**
*BA East Asian Studies*                                                             Aug 2004 - *Jun 2008*
GPA: 3.41 / 4.0
- Minor in Chinese and Communications
- Media Fellows Alum: Prestigious news/media/journalism program in the Midwest