# Elise Jing

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#### EDUCATION

Ph.D. Complex Systems, Indiana University

- Minor: Computational Linguistics
- Main areas: Data Science, Natural Language Processing, Network Science

#### B.A. Sun Yat-sen University

Jun 2014

Expected: May 2020

• Dual major in Anthropology and Information Science

#### SKILLS

Languages: Python (primary language), Apache Pig, Java, SQL, R, HTML Libraries:

- Data science: NumPy, SciPy, Pandas, Scikit-Learn, Jupyter
- Deep learning: Keras, PyTorch
- Visualization: Matplotlib, Seaborn

Other Tools: Git, Latex, Gephi

Qualitative research: Anthropological field work, participant observation, survey and interview.

# Project EXPERIENCE

#### Novelty and Success of Writings in an Online Community

- Created a Python web scraper to collect a large dataset of more than 4 million fictions
- Used the TF-IDF and LDA models to quantify the novelty of fictions
- Created multiple regression models and generalized additive models to find out what makes creative writings successful
- Paper in review: ICWSM 2019
- Code: https://github.com/yzjing/ao3

# Forecasting Large-scale Economic Evolution

- Used Apache Hadoop and Pig to work with huge datasets from LinkedIn
- Analyzed the labor force flows between 147 industries and more than 3,000 regions
- Suggested a new approach for understanding the organization of industrial sectors and the evolution of global economy
- Paper in submission to PNAS. Arxiv: 1902.04613. Patent filed: US 15/229,956

## Work Experience

## Associate Instructor, Indiana University

Aug 2014-present

- Use live code demos to teach the full Python data science stack, including NumPy, SciPy, Matplotlib, Pandas, Scikit-Learn, and Jupyter
- Help 30+ students in learning Python/Javascript programming and data visualization skills each semester
- Provide supervision and feedback for 10+ student projects each semester

# Honors & Awards

- LinkedIn Economic Graph Challenge, 2015 (One of the 11 winning teams)
- NSF Research Trainee scholarship in Complex Networks and Systems, 2018
- Alumni of the Santa Fe Institute's Complex Systems Summer School, 2016

- Academic Services Review for WWW 2017, 2018
  - Review for PLOS ONE
  - Volunteer for the Techie Women Have More conference, Indiana University, 2016