# Elise Jing

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## Education

Ph.D. Complex Systems, Indiana University — Expected: May 2020

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

B.S. Information Science, Sun Yat-sen University — Jun 2015
B.A. Anthropology, Sun Yat-sen University — Jun 2014

## Skills

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

- Data science: NumPy, SciPy, Pandas, Scikit-Learn, Jupyter
- Deep learning: Keras
- 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*. 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
- Volunteer for the Techie Women Have More conference, Indiana University, 2016