

# YU CAO

## Computational Linguist

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## PROFESSIONAL PROFILE

- Linguistics** Specialized in computational linguistics, semantics, syntax, discourse analysis. Strong critical-thinking and problem-solving skills.
- Computation** Expertise in NLP/NLU modeling and machine learning algorithms. 15+ years of experiences in algorithms and data structures.

## EXPERIENCES

### Applied Researcher

#### eBay

📅 11/2021 – present

📍 San Jose, CA

- Work at Content, Item and Inventory Understanding Team.
- Build and evaluate models for understanding listings.

### Ontology Linguist

#### Facebook via PRO Unlimited

📅 08/2019 – 10/2019

📍 Redmond, WA

- Worked at Assistant Cross-Functional Group.
- Prototyped cross-domain semantic parsing models for question answering.
- Automated inferences in OWL 2 ontology knowledge graphs.

### Teaching Assistant

#### Rutgers University

📅 09/2018 – 08/2020

📍 New Brunswick, NJ

- Courses taught: *Intro to Linguistic Theory*, *Invented Languages*.

### Research Assistant

#### The Chinese University of Hong Kong

📅 12/2014 – 07/2015

📍 Hong Kong, China

- Worked at Center for Sign Linguistics and Deaf Studies.
- Provided linguistic expertise in developing Chinese grammatical knowledge assessment software.

## EDUCATION

### Rutgers University

#### Ph.D. in Linguistics

📅 09/2016 – 10/2021

📍 New Brunswick, NJ

### The Chinese University of Hong Kong

#### M.A. in Chinese Linguistics & Language Acquisition

📅 09/2013 – 06/2014

📍 Hong Kong, China

### Sichuan Normal University

#### B.A. in Teaching Chinese as a Second Language

📅 09/2009 – 06/2013

📍 Chengdu, China

## PUBLICATIONS

- [Plurality and quantification in graph representation of meaning](#) (🔗 code)  
*Doctoral dissertation on arXiv:2112.06448.*  
👤 Yu Cao.  
Advisor: Simon Charlow.
- [Automated fact-value distinction in court opinions](#)  
*European Journal of Law and Economics* 2020.  
👤 Yu Cao, Daniel Chen & Elliot Ash.  
Automated classification of fact vs. value statements in written judicial decisions.
- [Investigating BERT's knowledge of language: Five analysis methods with NPIs](#)  
*Proceedings of EMNLP 2019.*  
👤 Alex W., Yu Cao & 14 others.  
Supervisor: Sam Bowman.  
Role: constructed and conducted the main transfer learning experiments.

## SKILLS

### Technical

- Python, C, Haskell, SQL, PyTorch, Tensorflow
- Linguistic analysis, symbolic logic, statistics

### ML/NLP Coursework

- [Natural language processing](#) 🔄  
📅 09/2020 🏛️ HSE@Coursera
- [Bayesian methods for machine learning](#) 🔄  
📅 08/2020 🏛️ HSE@Coursera
- [Introduction to deep learning](#) 🔄  
📅 07/2020 🏛️ HSE@Coursera
- Machine learning  
📅 07/2020 🏛️ Stanford@Coursera
- Seminar: Linguistic knowledge in reusable sentence encoders  
📅 05/2019 🏛️ NYU
- Graph formalisms for meaning representations  
📅 07/2018 🏛️ NASSLLI@CMU
- NLU & computational semantics  
📅 05/2018 🏛️ NYU

### Languages

ENG (fluent) CHN (native) JPN (JLPT N1)