

Rutgers Department of Linguistics
18 Seminary Place
New Brunswick, New Jersey 08901-1184

<https://pterosdiacos.github.io/>
yc825@linguistics.rutgers.edu

PROFESSIONAL SUMMARY

- Linguistics** PhD student in linguistics with a specialization in computational semantics, syntax-semantics interface, and discourse analysis. Strong critical-thinking and problem-solving skills.
- Computation** Computational mindset and experiences in algorithm design and data structures gained through engaging in Olympiad in Informatics since high school. The First Prize in the 13th National Olympiad in Informatics in Provinces, China.
- NLP/NLU** Highly interested in how learning models and formal theories inform each other. Relevant coursework: Natural Language Understanding and Computational Semantics (LING-GA 1012), Team Project Seminar: Linguistic Knowledge in Reusable Sentence Encoders (LING-GA 3340) at New York University. Graph formalisms for meaning representations at NASSLLI 2018, Carnegie Mellon University. Statistical Natural Language Processing at Coursera.

SKILLS

Statistical and neural modeling in NLP	Linguistic Analysis
Programming in Python, C, Pascal	

LANGUAGES

- Fluent** Mandarin (native), English (fluent), Japanese (working fluency; certified Level N1, Japanese Language Proficiency Test 2013), Cantonese (limited fluency).
- Basic** French (beginner), Hong Kong Sign Language (beginner).

PROJECTS

- Ongoing** Graph Representation of Meaning. Revised Abstract Meaning Representation to model scope, intensionality and other phenomena in formal semantics study. Developed a model-theoretical interpreter for graphs and a construction mechanism based on CCG and hyperedge replacement algebra.
- 05/2019** Investigating BERT's Knowledge of Language: Five Analysis Methods with NPIs (accepted to EMNLP 2019). Team project supervised by Sam Bowman at NYU.
- 06/2018** Automated Fact-Value Distinction in Court Opinions. Open access at SSRN. In collaboration with Daniel L. Chen at the New York University Center for Data Science and Data Science Justice Collaboratory.
- Using dependency features to distinguish fact vs. value statements.
 - Shown in application that value segments of court opinions are more informative than fact segments of the ideological direction of the U.S. Circuit Court.

- 12/2017 Incremental topological sorting (<https://github.com/PterosDiacos/Incremental-Topo-Sort>).
- Modified Kahn's algorithm to handle topological sorting with disjunctive precedence conditions.
 - Conducted an experimental study to compare different incremental updating strategies under the uncertainty of disjunction.

WORK

- 08/2019–10/2019 Ontology Linguist at AR/VR team, Pro Unlimited @ Facebook.
Ontology reasoning, semantic parsing, and their interaction.
- 09/2018–present Teaching Assistant/Course Instructor at Rutgers University. Course taught: Introduction to Linguistic Theory (LING 201).
- 12/2014–07/2015 Research Assistant at the Center for Sign Linguistics and Deaf Studies, The Chinese University of Hong Kong.
Provided linguistic expertise and assisted in developing a tablet-based Chinese grammatical knowledge assessment tool for deaf/hard of hearing children.

EDUCATION

- 2016–present Rutgers, The State University of New Jersey,
Doctor of Philosophy in Linguistics.
- 2013–2014 The Chinese University of Hong Kong,
Master of Arts in Chinese Linguistics and Language Acquisition,
On Dean's List 2013–2014,
Won the Best M.A. Thesis Award 2014 with *The syntax and semantics of gapping-like ellipsis in Chinese*.
- 2009–2013 Sichuan Normal University, China,
Bachelor of Arts in Teaching Chinese as a Foreign Language,
Won the Distinguished Thesis Award 2013 with *The semantics of the mix-object construction*.

OTHER ACADEMIC EXPERIENCE

- 06/2018 North American Summer School on Logic, Language, and Information.
- 07/2015 LSA Linguistic Summer Institute, University of Chicago.