

# Panupong (Ice) Pasupat

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**OBJECTIVE** Pursuing a research internship in the field of natural language processing.

**EDUCATION** .....

**Stanford University** Stanford, CA  
*Pursuing Doctor of Philosophy in Computer Science* current

**Massachusetts Institute of Technology** Cambridge, MA  
*Bachelor of Science in Electrical Engineering and Computer Science (GPA 5.0/5.0)* 2009-2013

**EXPERIENCE** .....

**Google Research, Google** Mountain View, CA  
*Software Engineering Intern* 2015

- Developed deep learning models with TensorFlow for retrieving words that are paraphrases of the given definitions.
- Proposed and implemented negative sampling methods using linguistic resources to better distinguish closely related words from each other.
- Demonstrated how appropriate combinations of model choices and negative samplers improve the model accuracy.

**Speech and Dialog Research Group, Microsoft Research** Mountain View, CA  
*Research Intern* 2014

- Bootstrapped classifiers for detecting knowledge base relations in spoken dialog queries in an unsupervised fashion.
- Mined queries from search engine query click logs and automatically label objects of relations using distant supervision from knowledge graphs.
- Inferred query patterns corresponding to each relation using the automatic labels and the nature of query click logs.

**Natural Language Processing Laboratory, Tokyo Institute of Technology** Yokohama, Japan  
*Exchange Student* 2013

- Experimented on Tweet sentiment analysis using different classifiers and features.
- Applied structural correspondent learning to incorporate unlabeled data to the classifier.

**Spoken Language Systems Group, MIT Computer Science & Artificial Intelligence Lab** Cambridge, MA  
*Researcher, Intern* 2012

- Designed web interfaces on Amazon Mechanical Turk to collect spoken sentences and their semantic labeling.
- Trained sequence tagging models by implementing features for conditional random fields, resulting in English and Chinese models for categorizing words in speech queries.
- Tested the models via speech-enabled mobile applications for movie, flight, and restaurant recommendation.

**Language of Thought, MIT Department of Linguistics** Cambridge, MA  
*Researcher, Intern* 2010

- Designed algorithms to automatically measure formant frequencies of vowels from sound files in order to observe the patterns and constraints of vowels in spoken languages.
- Designed online experiments on Amazon Mechanical Turk to study the constraints on language acquisition.

**SELECTED PUBLICATIONS** .....

- Yuchen Zhang, **Panupong Pasupat**, Percy Liang. "Macro Grammars and Holistic Triggering for Efficient Semantic Parsing." *Empirical Methods on Natural Language Processing (EMNLP)*, 2017.
- Kelvin Guu, **Panupong Pasupat**, Evan Liu, Percy Liang. "From Language to Programs: Bridging Reinforcement Learning and Maximum Marginal Likelihood." *Association for Computational Linguistics (ACL)*, 2017.
- **Panupong Pasupat**, Percy Liang. "Inferring Logical Forms From Denotations." *Association for Computational Linguistics (ACL)*, 2016.
- **Panupong Pasupat**, Percy Liang. "Compositional Semantic Parsing on Semi-Structured Tables." *Association for Computational Linguistics (ACL)*, 2015.
- **Panupong Pasupat**, Dilek Hakkani-Tür. "Unsupervised Relation Detection Using Automatic Alignment of Query Patterns Extracted from Knowledge Graphs and Query Click Logs." *Interspeech*, 2015.
- **Panupong Pasupat**, Percy Liang. "Zero-shot entity extraction from web pages." *Association for Computational Linguistics (ACL)*, 2014.

**SKILLS** .....

- **Computer Languages:** Python, Java, JavaScript
- **Languages:** Thai (native speaker), English (fluent), Japanese (intermediate)