

# Deric Pang

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## WORK EXPERIENCE

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**Figma** July 2023 - Present  
*Senior Machine Learning Engineer* New York, NY

- Lead the modeling and evaluation of new design generation AI features.
- Built the LLM finetuning infrastructure used by Figma's machine learning engineers.
- Developed the evaluation strategy for new text- and vision-based design search.

**Google** Sept. 2019 - July 2023  
*Senior Software Engineer, Tech Lead* New York, NY

- Worked on semantic parsing and question answering for Google Search -- when you search for *what's the tallest building in nyc*, our team built models and infrastructure to answer that question.
- Lead a project to bring the power of LLMs into Google question answering through model distillation. Built the initial implementation and grew the project from just me to a team of 5 engineers. Scoped, designed, and assigned work to my team, consulted for nearly 10 client teams, and coordinated with partner teams in Google Research and Shopping. Directly enabled several feature launches including What To Watch and Services Jobs Search. Several model improvements each increased Google Search Query Understanding precision by double digits.
- Built a system to process Google's web crawl and mine entity relations for Google's knowledge graph e.g. *Manhattan is a borough of New York City*.

**NVIDIA** March 2018 - June 2018  
*Applied Research Intern* Redmond, WA

- Developed methods of training neural networks in simulation for autonomous navigation.
- Built a rover which was 7% more autonomous than robots using previously published techniques.

**Amazon Alexa AI** June 2017 - Sept. 2017  
*Software Development Engineering Intern* Seattle, WA

- Shipped features in Amazon's internal deep learning framework specialized for speech recognition.
- Built a system to automatically convert Alexa's acoustic model into other deep learning frameworks.

## EDUCATION

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**University of Washington** 2014 - 2019  
*B.S. & M.S. in Computer Science* Seattle, WA

Thesis: *Improving Natural Language Inference with Syntactic Word Representations*

Honors: *cum laude*, Phi Beta Kappa

CRA Outstanding Undergraduate Researcher Award (Honorable Mention)

## ACADEMIC RESEARCH

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**UW Natural Language Processing** Jan. 2018 - June 2019  
*Researcher, advised by Noah A. Smith* University of Washington

- Improved natural language inference by adding syntax embeddings to neural sequence encoders [1].

**Programming Languages and Software Engineering Lab** March 2015 - Jan. 2018  
*Researcher, advised by Michael Ernst, Luke Zettlemoyer, and René Just* University of Washington

- Worked on Tellina, a tool to generate bash commands from plain English using deep learning [2].
- Created an automatic bug finder using patch minimization and delta debugging techniques [3].

## PUBLICATIONS

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1. **D. Pang**, L. H. Lin, and N. A. Smith. *Improving natural language inference with a pretrained parser*. arXiv preprint arXiv:1909.08217, 2019.
2. X. V. Lin, C. Wang, **D. Pang**, K. Vu, L. Zettlemoyer, and M. D. Ernst. *Program synthesis from natural language using recurrent neural networks*. Technical report, University of Washington, 2017.
3. S. Pearson, J. Campos, R. Just, G. Fraser, R. Abreu, M. D. Ernst, **D. Pang**, and B. Keller. *Evaluating and improving fault localization*. In ICSE, 2017.