

# Deric Pang

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pderichai.github.io

## EXPERIENCE

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### Google

Software Engineer

Sept. 2019 – Present

Mountain View, CA

- Natural language processing and machine learning for commonsense knowledge and reasoning.

### UW Natural Language Processing

Researcher, advised by Noah Smith

Jan. 2018 – June 2019

University of Washington

- Improved textual inference by incorporating syntactic information in neural models [2].

### Unity Technologies

Machine Learning Intern

June 2018 – Sept. 2018

San Francisco, CA

- Shipped multi-agent curriculum learning in the Unity Machine Learning Agents Toolkit.

### NVIDIA

Applied Research Intern

Mar. 2018 – June 2018

Redmond, WA

- Created and investigated methods to train neural networks in simulation for autonomous navigation.
- Built a rover which was 7% more autonomous than robots using previously published techniques.

### Programming Languages and Software Engineering Lab

Researcher, advised by Michael Ernst, Luke Zettlemoyer, and René Just

Mar. 2015 – Jan. 2018

University of Washington

- Worked on Tellina, a tool to generate bash commands from plain English using deep learning [1].
- Created an automatic bug finder using patch minimization and delta debugging techniques [3].

### Alexa Machine Learning — Amazon

Software Development Engineering Intern

June 2017 – Sept. 2017

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.

### Marchex

Software Engineering Intern

June 2016 – Sept. 2016

Seattle, WA

- Built an automatic speech recognition system based on the Deep Speech 2 neural network architecture.

### Amazon

Software Development Engineering Intern

Mar. 2016 – June 2016

Seattle, WA

- Used AWS SWF, Lambda, S3, DynamoDB, SQS, and SNS to automatically update bank account validation files.

## EDUCATION

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### University of Washington

M.S. in Computer Science

June 2019

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

### University of Washington

B.S. in Computer Science

Mar. 2018

Honors: *cum laude* (GPA: 3.79/4.00), Phi Beta Kappa

CRA Outstanding Undergraduate Researcher Award (Honorable Mention)

## PUBLICATIONS

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- [1] 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.
- [2] D. Pang, L. H. Lin, and N. A. Smith. Improving natural language inference with a pretrained parser. *arXiv preprint arXiv:1909.08217*, 2019.
- [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.