

# Deric Pang

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<https://dericp.github.io>

## EDUCATION

### University of Washington

June 2019

M.S. in Computer Science

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

### University of Washington

Mar. 2018

B.S. in Computer Science

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

CRA Outstanding Undergraduate Researcher Award (Honorable Mention)

### Swiss Federal Institute of Technology in Zürich (ETH Zürich)

Sept. 2016 – Feb. 2017

University of Washington Computer Science & Engineering Direct Exchange

## EXPERIENCE

### UW Natural Language Processing

Jan. 2018 – June 2019

Researcher, advised by Noah Smith

University of Washington

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

### Unity Technologies

June 2018 – Sept. 2018

Machine Learning Intern

San Francisco, CA

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

### NVIDIA

Mar. 2018 – June 2018

Applied Research Intern

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

Mar. 2015 – Jan. 2018

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

University of Washington

- Worked on the Tellina project [1] to generate bash commands from plain English using deep learning.
- Created an automatic bug finder using patch minimization and delta debugging techniques [2].

### Alexa Machine Learning — Amazon

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.

### Marchex

June 2016 – Sept. 2016

Software Engineering Intern

Seattle, WA

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

### Amazon

Mar. 2016 – June 2016

Software Development Engineering Intern

Seattle, WA

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

**Languages:** Python, Java, C, C++, Shell, Scala, HTML & CSS, JavaScript,  $\LaTeX$

**Tech/Tools:** PyTorch, TensorFlow, MXNet, AWS, Git, ROS, Unity, D3, Kaldi

## PUBLICATIONS

- [1] X. V. Lin, C. Wang, **Deric Pang**, K. Vu, L. Zettlemoyer, and M. D. Ernst. Program synthesis from natural language using recurrent neural networks. Technical Report UW-CSE-17-03-01, University of Washington Department of Computer Science and Engineering, Seattle, WA, USA, Mar. 2017.
- [2] S. Pearson, J. Campos, R. Just, G. Fraser, R. Abreu, M. D. Ernst, **Deric Pang**, and B. Keller. Evaluating and improving fault localization. In *ICSE 2017, Proceedings of the 39th International Conference on Software Engineering*, Buenos Aires, Argentina, May 2017.