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 [2].

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 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 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, 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. Improving natural language inference with syntactic word representations. Master's thesis, University of Washington, 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.