

# XIANGYU (BECKY) PENG

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Research area: Natural Language Generation, Reinforcement Learning,  
Knowledge Graph, Game AI, Deep Learning

## EDUCATION

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**Georgia Institute of Technology**, Atlanta, Georgia

*Aug 2019 - present*

PhD in Machine Learning, GPA: 4.00/4.00, Advisor: Dr. Mark O. Riedl

Relevant Coursework: Reinforcement Learning; Stochastic Process; Math foundation of Machine Learning;  
Non-linear Optimization; Advanced Algorithm; Natural Language Processing

**Stanford University**, Stanford, California

*Sep 2017 - Jun 2019*

M.S. in Structure Engineering, GPA: 4.00/4.30, Advisor: Dr. Jack Baker

Relevant Coursework: Deep Learning; Convolutional Neural Networks for Visual Recognition; Machine Learning; Data Mining and Analysis; Mining Massive Data Sets

**Shanghai Jiaotong University**, Shanghai, China

*Sep 2013 - Jun 2017*

B.S. in Civil Engineering, GPA: 3.95/4.00, Advisor: Dr. Lulu Zhang

Relevant Coursework: Data structure; Programming Abstractions in C++

## PUBLICATIONS

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**Augmented Neural Story Generation with Commonsense Inference**

Peng, X., Li, S., Wiegrefe, S. and Riedl, M.

*Submitted to the 30th International Joint Conference on Artificial Intelligence (IJCAI-21)*

**Detecting and Adapting to Novelty in Games**

Peng, X., Balloch, J., and Riedl, M.

*Reinforcement Learning in Games workshop at AAAI 2021*

*Creativity and Robotics workshop at ICSR 2020*

**Reducing Non-Normative Text Generation from Language Models**

Peng, X., Li, S., Frazier, S. and Riedl, M.

*The 13th International Conference on Natural Language Generation (INLG 2020)*

**Improving Neural Storytelling with Commonsense Inferences**

Peng, X., Li, S., Wiegrefe, S.

*Poster Presentation. NeurIPS WiML workshop 2020*

**Effects of cross-correlated multiple spatially random soil properties on wave-induced oscillatory seabed response.**

Peng, X.Y., Zhang, L.L., Jeng, D.S., Chen, L.H., Liao, C.C. and Yang, H.Q.

*Applied Ocean Research (2017), 62, pp.57-69.*

**Wave-Induced Oscillatory Response in a Randomly Heterogeneous Seabed with Cross-correlated Soil Properties.**

Peng, X.Y. and Zhang, L.L.

*In The Twelfth ISOPE Pacific/Asia Offshore Mechanics Symposium. International Society of Offshore and Polar Engineers (2016).*

## WORK EXPERIENCE

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**Graduate Research Assistant** Aug 2019 - Present  
*Human-Centered Artificial Intelligence And Entertainment Intelligence Lab* Atlanta, Georgia

- Current project: Improvisational Reinforcement Learning In Open Worlds
- Current project: Generating common sense stories between multiple characters
- Previous project: Reducing Non-Normative Text Generation from Language Models

**Data Scientist Intern** Jun 2018 - Sep 2018  
*SunPower Corp.* San Jose, California

- Exploring feature extraction of 1-second hot-spot cell test by conducting correlation analysis
- Finding effective data representations and evaluation metrics for training neural networks of predicting hot-spot max temperature
- Implementing automatic data recording and correlation analysis interface with python

**Research Assistant** Jun 2014 - Jun 2017  
*State Key Laboratory of Ocean Engineering of China* Shanghai, China

- Exploring soil properties relationship in heterogeneous seabed and liquefaction depths under pressure
- Developing a stochastic finite element model in MATLAB to integrate multiple spatially random soil property
- Investigating the effects of negatively cross-correlated spatially random soil properties with data mining

## SKILLS

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**Technical:** Natural Language Processing, Reinforcement Learning, Machine Learning, Knowledge Graphs, Predictive Analytics, Computer Vision

**Programming:** C/C++, Python, R, SQL, MATLAB, Julia

**Tools and Framework:** Pytorch, Tensorflow, Git, scikit-learn, Numpy, Pandas, nltk

## AWARDS

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**NeurIPS Women in Machine Learning Workshop Travel Grant** Dec 2020

**Stewart Fellowship**, Georgia Institute of Technology Aug 2019

**Outstanding Graduates of Class 2017**, Shanghai Jiaotong University Jun 2017

**National Scholarship of China (Top 1%)**, Shanghai Jiaotong University Jan 2017

**Baogang Scholarship of China (Top 0.5%)**, Shanghai Jiaotong University Oct 2016

**Merit Student of Shanghai Jiao Tong University**, Shanghai Jiaotong University Jun 2016

**Merit Volunteer of Shanghai Jiao Tong University**, Shanghai Jiaotong University Jun 2015