

XIANGYU (BECKY) PENG

(650)-382-9420 \diamond xpeng62@gatech.edu

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

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia

Expected 2023

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

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

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

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)

Reducing Non-Normative Text Generation from Language Models.

Peng, X., Li, S., Frazier, S. and Riedl, M., 2020.

arXiv preprint arXiv:2001.08764.

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).

Wave-induced oscillatory response in a randomly heterogeneous porous seabed.

Zhang, L.L., Cheng, Y., Li, J.H., Zhou, X.L., Jeng, D.S. and **Peng, X.Y.**

Ocean Engineering (2016), 111, pp.116-127.

WORK EXPERIENCE

Graduate Research Assistant

Human-Centered Artificial Intelligence And Entertainment Intelligence Lab

Aug 2019 - Present

Atlanta, Georgia

- Current project: Improvisational Reinforcement Learning In Open Worlds
Applying Advantage Actor Critic Model with Knowledge Graph to detect and restore the agent optimal
- Current project: Generating common sense stories between multiple characters
Exploring the combination of GPT-2, Automatic Knowledge Graph and Reinforcement Learning to generate more logically coherent stories
- Previous project: Reducing Non-Normative Text Generation from Language Models
Using BERT to train the attribute classifier and applying reward generated it to the loss of language model, in order to fine-tune language model to generate less non-normative continuations

Data Scientist Intern

SunPower Corp.

Jun 2018 - Sep 2018

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

State Key Laboratory of Ocean Engineering of China

Jun 2014 - Jun 2017

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

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

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