

XIANGYU (BECKY) PENG

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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)

Improving Neural Storytelling with Commonsense Inferences

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

Accepted in 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).

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