XIANGYU (BECKY) PENG

(650)-382-9420 ⋄ 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

Peng, X., Li, S., Frazier, S. and Riedl, M., 2020. Fine-Tuning a Transformer-Based Language Model to
Avoid Generating Non-Normative Text. *arXiv preprint arXiv:2001.08764.*

Peng, X.Y., Zhang, L.L., Jeng, D.S., Chen, L.H., Liao, C.C. and Yang, H.Q., 2017. Effects of cross-
correlated multiple spatially random soil properties on wave-induced oscillatory seabed response. *Applied
Ocean Research, 62, pp.57-69.*

Peng, X.Y. and Zhang, L.L., 2016, October. Wave-Induced Oscillatory Response in a Randomly Het-
erogeneous Seabed with Cross-correlated Soil Properties. *In The Twelfth ISOPE Pacific/Asia Offshore
Mechanics Symposium. International Society of Offshore and Polar Engineers.*

Zhang, L.L., Cheng, Y., Li, J.H., Zhou, X.L., Jeng, D.S. and **Peng, X.Y.**, 2016. Wave-induced oscillatory
response in a randomly heterogeneous porous seabed. *Ocean Engineering, 111, pp.116-127.*

WORK EXPERIENCE

Graduate Research Assistant   Aug 2019 - Present
Human-Centered Artificial Intelligence And Entertainment Intelligence Lab   *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   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 integrat 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 Vison

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*