Yunyu Liu

EDUCATION

09/2020 -   now   **Purdue University, Indiana, USA**
  Ph.D.,   *Major: Computer Science*
09/2018 - 05/2020 **Northeastern University (NEU), Boston, USA**
  M.S.,   *Major: Computer Engineering*
09/2014 - 07/2018 **Shanghai Jiao Tong University (SJTU), Shanghai, China**
  B.Eng.,   *Major: Electrical Engineering   Minor: Finance*

SELECTED PUBLICATIONS[MORE CAN BE FOUND HERE]

09/2024   **Yunyu Liu**, Bedrich Benes, "Single-Shot Example Terrain Sketching by Graph Neural Networks", CGF
05/2023   Peihao Wang, Shenghao Yang, **Yunyu Liu**, Zhangyang Wang, Pan Li, "Equivariant hypergraph diffusion neural operators", ICLR 2023
01/2022   **Yunyu Liu**, Jianzhu Ma, Pan Li, "Neural Predicting Higher-order Patterns in Temporal Networks", WWW 2022
01/2021   Yanbang Wang, Yen-Yu Chang, **Yunyu Liu**, Jure Leskovec, Pan Li, "Inductive Representation Learning in Temporal Networks via Causal Anonymous Walks", ICLR 2021
07/2020   **Yunyu Liu**, Lichen Wang, Yue Bai, Can Qin, Zhengming Ding, Yun Fu, "Generative View-Correlation Adaptation for Semi-Supervised Multi-View Learning", ECCV 2020
08/2019   Lichen Wang, Zhengming Ding, Zhiqiang Tao, **Yunyu Liu**, Yun Fu, "Generative Multi-View Human Action Recognition", ICCV 2019 (Oral)
05/2018   **Yunyu Liu**, Zhiyang Xia, Ping Yi, Wei Wang, Yao Yao, Ting Zhu, Tiantian Xie, "GENPass: A General Deep Learning Model for Password Guessing with PCFG Rules and Adversarial Generation", ICC 2018

WORK EXPERIENCE

Meta, BizAI, Software Engineer Intern, Machine Learning

- Hallucination Control in text generation under the multilingual scenario.   **May 2025 – Aug 2025**

- Design the new reward model and use PPO for better advertising.   **May 2024 – Aug 2024**

SCIENTIFIC RESEARCH EXPERIENCE

Purdue University, CGV Lab   **Jan 2022 –   Now**

Multiview Point Cloud Registration

- Register different views from one scene using an end-to-end deep learning-based method. (ongoing)

Terrain Generation using Single Image

- Enabled terrain generation from user sketches using a single reference terrain, with support for progressive generation of individual ridges and valleys.

- Enable the users to generate plausible terrain coverage and corresponding materials. (ongoing)

Purdue University, GCoM,   **Sep 2020 – Jan 2022**

Pattern prediction in the temporal network

- Defined triplet interaction expansion in temporal hypergraphs, and built a lightweight model to predict interaction type, timing, and cause among node triplets.

Northeastern University, Synergetic Media Learning Lab,   **Oct 2018 – Aug 2020**

Semi-supervised Multi-view Learning

- Employed generative models and domain adaptation to multi-view learning to fully explore multi-view information.

- Proposed a graph-based method for the label-level fusion and utilized information entropy to help the fusion.

Multi-aspect Sentiment Classification (Collaborate with NEC lab)

- Developed a reinforcement learning model to align task-relevant words with aspects accurately.

- Developed an end-to-end pipeline for the agents to explore paths from target aspect nodes to their potential sentimental regions based on a minimum spanning tree algorithm.