

## Code for paper BubbleFormer: Bubble Diagram Generation via Dual Transformer Models

### 1. Configuration

- Python 3.8
- PyTorch 1.9.1
- Torchnet 0.0.4
- Tensorboard 2.12.0
- Torchvision 0.10.1

### 2. Dataset

We provided whole dataset BubbleFormer\_Dataset.zip. Unzip the file to get our partitioned dataset.

### 3. Training the models

We provide the training script for the boundary input constraint. First set the dataset path in 'main.py'. Then run main.py to start training and get the trained model. The neural networks are described in detail in our paper.

### 4. Synthesizing bubble diagrams

- 1) By 3. Training the models, we can obtain the trained BubbleFormer model.
- 2) Move the trained model into the folder. Set the validation set data path 'data\_pth', result save path 'save\_pth' and trained model path 'model\_pth' in the 'test.py' and then run it to get result bubble diagrams.