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EDUCATION

Northeastern University (Qinhuangdao) **Internet of Things** **Sep2024 – Today**

- **GPA：4.3/5.0** **Rank：1/89**
- **Core Courses：** Advanced Mathematics（95+96）、C++（96+95）、Linear Algebra（90）、Java（93+95）、Data Structure（92+95）、Discrete Mathematics（99）、Probability and Mathematical Statistics（99）
- **English Level：** CET-6（500）

RESEARCH

《Text-to-Image Generation with LoRA Fine-tuning on Stable Diffusion》 **Core member** **Oct2024 - Dec2024**

- Responsible for training the LoRA model with FLUX as the base model. By fine-tuning the training rounds, learning rate and trigger words, the specific artistic style is accurately generated;
- The project strategy of Prompt is designed and optimized, and the noise in training data is effectively filtered by combining Negative Prompt, which improves the quality and consistency of generated images.

《Anomaly Detection of Multivariate Time Series Based on ESN》 **First Author** **Dec2025 - Today**

- Aiming at the anomaly detection of multivariate time series data, a fusion model based on echo state network (ESN) is designed and implemented. By introducing RevIN normalization layer and MLP nonlinear projection head, the fitting ability of the model to complex time series patterns is significantly improved;
- The training process of the model is optimized, including loss function design and hyperparameter tuning (such as spectral radius and sparsity). Based on the TAB benchmark framework, the comparative experiments with the baseline model are completed on several public data sets (SMD, SMAP_MSL, Mackey Glass);
- AUC-PR, F1-score and other indicators are used to evaluate the performance of the model, which effectively solves the problem of insufficient accuracy of traditional ESN under high recall rate. Relevant achievements are expected to be submitted to IEEE Transactions series journals in April and May.

AWARDS

National: National Scholarship(2024-2025)

Ministry of Education, China (awarded to top 1% of undergraduate students nationwide)

Provincial:

- First Prize, 17th National College Students Mathematics Competition (Hebei Division)
- Third Prize, 16th Lanqiao National Software and IT Professionals Competition (Group A, Hebei Division)

School: Outstanding advanced individual,etc.