Lexiao Zou

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Education

Harbin Institute of Technology, Shenzhen Campus **Sep. 2020 – present**
Bachelor of Science in Computer Science *Guangdong, CHN*

- GPA: 90.88/100
- Selected Coursework
  - ∗ Introduction to Deep Learning (95)
  - ∗ Computer Architecture (100)
  - ∗ Computer Organization (98)
  - ∗ Compile Principle (98)
  - ∗ Operating System (92)
  - ∗ Introduction to Algorithms (91)

Awards and Scholarships

Second-prize Scholarship of HITSZ **2021–2022**

Third Prize in track 2, CCAC AI debate contest **June 2022**

First Prize in Chinese Biology Olympiad **May 2019**

Research Experience

Human Language Technology, HIT **June 2022 – Oct. 2022**
Undergraduate Research Assistant *Supervisor: Prof. Ruifeng Xu*

- Explore the topic of argumentation relation detection and aim at tackling unbalanced dataset. Apply adversarial attack, unbalanced loss, model ensemble to train a graph neural network which leverages knowledge from dependency information and pre-trained language model.
- Third Prize in track 2, CCAC AI debate contest, 2022

Multi-modal Intelligence Research **Oct. 2022 – Present**
Undergraduate Research Assistant *Supervisor: Prof. Liqiang Nie*

- Survey on current domain adaptation methods applied on time series analysis.
- Design a comprehensive evaluation system for domain adaption applied on time series classification.
- Analyze adversarial-based adaptation method applied to CNN-based time series classification model and attempt to modify it to get better transferability.(ongoing)

Projects

Five-stage pipe-lined CPU based on RISC-V | *Verilog, vivado* **June 2022**

- Design a classic five-stage pipe-lined CPU with feed-forward, branch forecasting mechanism and implement a subset of RISC-V instruction with verilog.
- Support basic calculation, memory access, jump&branch functions and burn to an FPGA to run a simple calculator program that already compiled to machine code.

CS224N courses assignments | *Python, Pytorch* **Feb. 2023**

- Explore count-based and prediction-based word embedding and implement Word2Vec algorithm.
- Implement and train an transition-based neural dependency parser with Pytorch and analyze a few erroneous dependency parses.
- Build a Cherokee-English neural machine translation with LSTM and seq2seq models. Analyzing NMT systems and BLEU evaluation methods.

Skills

Programming: Python, Java, C, verilog, SQL
Tools and Frameworks: PyTorch, numpy, LaTeX, bash, git, camke
Language: TOEFL 106