YINGHAO CAI

University of Copenhagen, Copenhagen, Denmark
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EDUCATION

Aug. 2024 - Jun. 2026 — **School of Science, University of Copenhagen** — Copenhagen Denmark
Computer Science Program

Sept. 2020 - Jun. 2024 — **School of Artificial Intelligence, Southeast University** — Nanjing China
Major: Artificial Intelligence

- GPA:3.88/4
- Average Score: 90.06/100
- Rank: 3/94

Sept. 2023 - Dec. 2023 — **University of California, Santa Barbara** — Santa Barbara CA
Exchange Student Program

EXPERIENCE

In Progress — **Node Classification on Heterophily Graph through edge Pseudo-labeling** — Dartmouth NH
The first author

- Adaptively chose message passing functions for different kinds of edges
- Advanced training framework based on RL
- Achieve SOTA performance on the *minesweeper* and *tolokers* datasets

Oct. 2023 - Aug. 2024 — **Exploring Consistency in Graph Representations:from Graph Kernels to Graph Neural Networks** — Dartmouth NH
The second author

- Published on NeurIPS 2024
- Identify the consistency principle in both kernel and GNN methods for graph classification tasks
- Propose a loss function that is suitable for all GNNs with layered structures
- Be responsible for the main part of the experiment
- Improve graph classification performance comprehensively on various datasets, including *NCI109*, *IMDB-B*, *ogbg-molhiv* and so on

2022 - 2023 — **Sparse and Low-Rank High-Order Tensor Regression via Parallel Proximal Method** — Nanjing China
The second author

- Propose an efficient algorithm to solve the problem of high-dimensional low-rank tensor regression
- Demonstrate algorithm's efficiency and superior performance on video classification dataset, *UCF101*
- Be responsible for the main part of the experiment

Mar. 2023 - Jun. 2023 — **Diabetic Knowledge Graph Construction and Prescription Prediction** — Nanjing China
Leader

- Design the pipeline of knowledge graph construction
- Be responsible for critical steps including named entity recognition and algorithm design
- Propose an algorithm predicting prescriptions based on deep random walk
- Achieve an outstanding accuracy

Sep. 2022 - Dec. 2022 **Video Caption Competition** Nanjing China
Leader

- Build a multimodal model based on ResNet, S2VT model, VGGish and C3D feature
- Beneficial to the understanding of the practical application of deep learning technology
- Achieve the third place in the competition among undergraduates and graduates

AWARDS

- **China National Scholarship**, National Scholarship Review Committee, rank: **0.18%**

PERSONAL

- **Language:** TOEFL 97
- **Software:** Python, C++, Matlab, CSS, HTML, Javascript, Protégé, Neo4j