Xu Shuyao

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🎓 Education

National University of Singapore (NUS), Singapore   Aug 2022 – Present

Bachelor of Computing in Computer Science (with Honours)
Second major in Statistics **GPA**: 4.85/5.0
Dean's List recipient in AY2022/23

Stanford University, USA   Jun 2023 – Aug 2023

Summer Quarter
International Honors Program **GPA**: 4.15/4.0

⚙ Professional Skills

- **Programming:** Python, Java, C. Familiar with LaTeX and Shell Scripting.
- **Machine Learning Theory and Practice:** Proficient in statistical learning (linear models, kernel methods, latent variable models...). Familiar with recent deep learning models (VAEs, Berts, GPTs, ViTs...) and training practices. Familiar with PyTorch, OpenCV...

👥 Experience

MapleCG Research Group @ NUS   Feb 2024 – Present

Undergraduate Researcher Supervisor: Prof. Bryan Low

- Conducting original research on efficient machine learning (structured model pruning and distillation).
- Implemented custom pruning pipeline based on PyTorch and existing implementations.

MarkBind   Jan 2024 – Present

Developer Supervisor: Prof. Damith C. Rajapakse

- Enhanced MarkBind, an static site generator based on Markdown syntax, using Node.js and Vue.
- Added table filtering and sorting functionality, mermaid diagrams support, auto-wrapping for code blocks...
- Utilized GitHub for CI/CD, improving team collaboration and code review.
- GitHub Project Link / Personal Contributions

🖾 Manuscripts

Bayesian Statistics and Machine Learning   Apr. 2024

A review on Bayesian methods in machine learning.

Video Action Recognition in the Deep Learning Era   Oct. 2023

A survey on the evolution of video action recognition through various paradigms.

📖 Courses

- Deep Learning Specialization (Coursera), 2023
- **NUS Courses** (incl. ongoing courses): **Graduate level**: CS4243 Computer Vision, ST4234 Bayesian Statistics, MA4270 Data Modelling and Computation, **Undergraduate level**: Probability and Statistics (A+), Discrete Structures (A+), Calculus for Computing (A+), Programming Methodology (A+), Database Systems (A+), Data Structure and Algorithms (A), Numerical Analysis (A)...
- **Stanford Courses**: CS148: Introduction to Computer Graphics and Imaging (A+), CS221: Artificial Intelligence: Principles and Techniques (A)