# Hu Hengchang
Website — Github

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## EDUCATION

**National University of Singapore**  Singapore
*Ph.D. Candidate - Computer Science*  *Aug. 2019 - Now*
- Member of Web Information Retrieval Natural Language Processing Group (WING).
- Research Direction - Recommender System, under supervision of Prof. Min-Yen Kan.

**Sichuan University**  Sichuan, China
*B.Eng. - Software Engineering*  *Sep. 2015 - Jul. 2019*
- Overall GPA: 3.78/4.0 ; Ranked 1st annually for 4 consecutive years and maintaining the 1st overall.

## EXPERIENCE

**NUS — Media Management Research Lab**  Singapore
*Fine-grained Image Classification; Research Assistant; Work with Prof. Roger Zimmermann*  *July 2023 - now*
- Implemented image segmentation techniques (SAM) and model design, as well as coordinated with the biology team and the app development team. My focus lies in utilizing the two-stream ResNet architecture for fine-grained classification of plant or animal images.

**Huawei — Noah's Ark Lab**  Singapore
*Recommender System; Research Intern*  *May 2022 - Mar. 2023*
- Studied topics of (1) interactive recommender systems and temporal knowledge graphs, and (2) modality fusion in sequential recommenders. Submitted research papers respectively as the first author.

**Chinese Academy of Sciences**  Beijing, China
*Institue of Computing Technology; Big Data Storage; Research Intern*  *Mar. 2018 - Oct. 2018*
- Applied TensorFlow's application to flow distributed data system (Spark Streaming). Mainly responsible for resampling (oversampling and undersampling) the data, and deploying them to HDFS.

**UC Berkeley**  California, US
*Innovation and Leadership - Winter Camp*  *Jan. 2017 - Mar. 2017*
- Be selected (0.3%) with full sponsorship to attend the short term courses of innovation and Leadership in UCB.

## OTHER RESEARCH PROJECT

**SSG Course Recommendation System**
*Project for SSG SkillFuture*
- Proposed Context-aware Neural Matrix Factorization (CA-NeuMF) to leverage the context information for superior course recommendation.
- Conducted a pilot study as the analysis of the SSG's SkillsFuture Credit (SFC) Programme, highlighting the efficacy of contextual factors.

## PUBLICATIONS

- Hu, Hengchang and Guo, Wei and Liu, Yong and Kan, Min-Yen, **Adaptive Modality Fusion in Sequential Recommendation**, accepted by CIKM (2023).
- Hu, Hengchang and Guo, Wei and Liu, Xu, Liu, Yong, Tang, Ruiming, Zhang Rui and Kan, Min-Yen, **Temporal Knowledge Graph for Sequential Recommendation**, accepted by WSDM (2024).
- Hu, Hengchang and Qijiong, Liu and Chuang, Li and Kan, Min-Yen, **Lightweight Modality Adaptation to Sequential Recommendation via Correlation Supervision**, under review of ECIR (2024).
- Wu, Jiahao and Liu, Qijiong and Hu, Hengchang and Fan, Wenqi and Liu, Shengcai and Li, Qing and Wu, Xiao-Ming, Tang, Ke, **Leveraging Large Language Models (LLMs) to Empower Training-Free Dataset Condensation for Content-Based Recommendation**, under review of WWW (2024).
- Hu, Hengchang and Cao, Yiming and He, Zhankui, Tan, Samson, and Kan, Min-Yen, **Automatic Feature Fairness in Recommendation via Adversaries**, accepted by SIGIR in the Asia Pacific (2023).

- Hu, Hengchang and Pan, Liangming and Ran, Yiding and Kan, Min-Yen, **Modeling and Leveraging Prerequisite Context in Recommendation**, accepted by CARS workshop in Recsys (2022).
- Li, Chuang and Hu, Hengchang, Zhang, Yan, KAN, Min-Yen, and Li, Haizhou **A Conversation is Worth A Thousand Recommendations: A Survey of Holistic Conversational Recommendation Systems**, accepted by KaRS workshop in Recsys (2023).
- Ran, Yiding and Hu, Hengchang and KAN, Min-Yen, **PM K-LightGCN: Optimizing for Accuracy and Popularity Match in Course Recommendation**, accepted by MORS workshop in Recsys (2022).
- Gong, Huanli and Hu, Hengchang and Pan, Liangming, KHANQ: **A Dataset for Generating Deep Questions in Education**, accepted by COLING (2022)

## PROGRAMMING SKILLS

- **Languages**: Python, C, C++, Java, Javascript, SQL, HTML, CSS
- **Machine Learning**: Knowledge of Plain Bayesian, LR, SVM, Decision Tree, Xgboost, etc.
- **Deep Learning**: Knowledge of CNNs, RNNs, GCNs and their variants; Proficient in using Pytorch
- **Other Technologies and Frameworks**: Django; Hadoop ; OpenGL (Graphic Rendering)

## ACCOMPLISHMENTS

- **National Scholarship** - Top Undergraduate Scholarship of China (1.4%) , 2016, 2017, 2018 and 2019.
- **Other Undergraduate Scholarship** - Sichuan Bainaohui Scholarship (2/279); Tang Lixin Scholarship (1/560)
- **One of Outstanding Top 100 Students** - Outstanding Grade President in Sichuan University, 2018.
- **Graduate Exemplary Student** - of Institute of Software, SCU (4 are selected for each graduating grade).
- **Innovation Competition Awards** - Gold Prize of 2017 Internet$^+$; Silver Award of Challenge Cup, 2018 Competition; $3^{rd}$ Prize of The $10^{th}$ Intel Cup National College Software Innovation Contest.
- **NUS Research Scholarship** - full scholarship for Computer Science Ph.D. candidates.
- **SoC Research Incentive Award** - Demonstration of good academic standing and research progress.

## TEACHING/ORGANIZATION EXPERIENCE

- Serve as Program Chair of Workshop on Personalized Generative AI in CIKM (Oct. 2023).
- Teach CS6101 WING.NUS Large Language Models (Aug. 2023 -).
- Organize and run an Recommendation System workshop for WING@NUS (March 2022).
- Organize and run an Information Retrieval seminar in WING@NUS (Sep. 2021 - Dec. 2021).
- Supervised the NUS undergraduate final year projects, including *Video Clip Recommendation for MOOCs Forum*, and *NUS Module Recommender System*.
- Assisted teaching NUS Modules including CS3244 Machine Learning, BT2102 Data Management and Visualisation, and CS5228 Knowledge Discovery and Data Mining.
- Served as the Grade President, and the Monitor of the Innovation Class during undergraduate 4 years.