DENGHENG SHI

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EDUCATION

University of Southern California　　　　　　　　　　　　　　　　　　Los Angeles, CA
Master of Science - Computer Science　　　　　　　　　　　　January 2024-December 2025
- relevant coursework: Analysis of Algorithm, Database System

Southern University of Science and Technology　　　　　　　　　　　Shenzhen, China
Bachelor of Engineering - Intelligence Science and Technology　　September 2019-June 2023
- GPA 3.7/4.0
- Selected coursework: Introduction to Java Programming, Discrete Mathematics, Algorithm Design and Analysis, Machine Learning, Artificial Intelligence, Computer Vision, Deep Learning, Intelligent Robotics, Computer Network

SKILLS
- Java, Python, Matlab, SQL and C++ experience; Microsoft Office Suite (Word, PowerPoint, and Excel); Pytorch in ML
- proficient with the use of Zoom and Teams; Endnote, Notion and Mailing; experience in Blackboard
- Leadership as the director in the events department of Calligraphy Club; Team-work in competition; Communication

RESEARCH EXPERIENCE

Southern University of Science and Technology　　　　　　　　　　　Shenzhen, China
Friend recommendation based on Hypergraph and LBSN data　　　March 2022-March 2023
- Analyzed both sides of existing hypergraphs using Python and Pytorch on LBSN data. Proposed a Heterogeneous Hypergraph Neural Network adapted to LBSN data, outperforming other hypergraph models by 2%±1.2
- co-published a CIKM article, "Heterogeneous Hypergraph Neural Network for Friend Recommendation with Human Mobility"
- Surveyed on related info, tuned parameters, tested codes and wrote report weekly

Southern University of Science and Technology　　　　　　　　　　　Shenzhen, China
Coloring With Limited Data: MemoPainter by Python　　　　　　　March 2022-June 2022
- Reproduced and explored algorithms proposed in the article: *Few-Shot Colorization via Memory-Augmented Networks method*
- Compared and analyzed effectiveness of 2 different adjustment based on the model and 2 other models on Pokemon dataset by Threshold Triplet Loss (https://github.com/stephannnnie/jydh-final)
- Reproduced one research paper, suggested two improvement directions, and implemented solutions in collaboration with team

Southern University of Science and Technology　　　　　　　　　　　Shenzhen, China
GAN-based Automatic Driving Scene Data Augmentation　　September 2021-December 2021
- Enriched limited autonomous driving scenarios at least twice more through data Augmentation in group of four by Python
- Implemented and compared the vaeGAN, starGAN, and CGAN; Used vaeGAN to convert normal scenes to high-brightness scenes; Transferred sunny scenes to rainy, dark, snowy, and cloudy scenes through starGAN

Southern University of Science and Technology　　　　　　　　　　　Shenzhen, China
Self-Driving Robot Car under ROS Platform　　　　　　　　　　　　June 2021-July 2021
- Employed the ROS framework to complete tasks on robot car such as two-lane patrolling of car, identifying traffic lights and making corresponding motion decisions, and identifying pedestrian crossings to decelerate, by C++ under the Ubuntu system
- Led team to win the fifth prize in final, the second in teams match

WORK EXPERIENCE

Annenberg Media Center at USC　　　　　　　　　　　　　　　　　Los Angeles, CA
Web contributor　　　　　　　　　　　　　　　　　　　　　　February 2024-May 2024
- Collaborate with team members to generate innovative ideas for website content and design improvements
- Engage in weekly meetings to discuss upcoming content and web strategies

Shenzhen KSDIOT Technology Co., Ltd　　　　　　　　　　　　　　Shenzhen, China
Product Manager Assistant　　　　　　　　　　　　　August 2022-September 2022
- Drafted overall development process, surveyed anti-bullying algorithms for voice and millimeter wave, investigated bullying nowadays and current state of anti-bullying and outcome 10+ analysis reports
- Compiled daily research report, and presented weekly report on development meetings
- Organized an anti-bullying product development plan for next stage of development and promotion