Jingyu Huang

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EDUCATION

Jilin University, Changchun, Jilin Province ***09/2017 - 06/2021***

Bachelor of Engineering in Software Engineering *GPA:87.3%*

- Awards: Second Class Scholarship in 2018, College Excellent Student in 2018, Second Class Prize in Mathematical Contest in Modeling of Jilin Province in 2018, Third Class Scholarship in 2019, Third Class Scholarship in 2020

University of Copenhagen, Copenhagen ***09/2021 - 07/2023***

Master of Science in Computer Science *GPA:7.22/12*

- Main Courses: Advanced Algorithms and Data Structures, Machine Learning, Signal and Image Processing, Numerical Optimization, Neural Information Retrieval

PUBLICATION

- Fengxin Li, Ziye Luo, Jingyu Huang et al. AlTwo: Vehicle recognition in foggy weather based on two-step recognition algorithm[C]. ISNN 2020 (17th International Symposium on Neural Networks)

RESEARCH EXPERIENCE

Vehicle detection under foggy conditions based on Convolutional Neural Network *06/2019 - 06/2020*

- Proposed a two-step recognition algorithm, AlTwo, to realize vehicle recognition under foggy conditions
- Used atmospheric scattering model to fog the public GTI vehicle data set to get low, medium and high-density foggy images and used the training set of foggy and original images to train the CNN based on AlexNet. The average of foggy image recognition rates is 61.51%, well below the original image recognition rate of 99.27%
- Defogged the foggy images with the dark channel prior method, to get the test set of defogging images
- Tested CNN with defogging test set, the accuracy of the foggy image recognition has been improved to 97%

Research on Medical Sample Amplification Algorithm Based on Generative Network *02/2021 - 06/2021*

- Compared the effects of three GAN models (WGAN-GP, SAGAN and ConSinGAN) on medical image samples.
- Used these three GAN models to double the train set and keep the test set unchanged. The original dataset is composed of randomly captured images in the public El Salvador Atlas of Gastrointestinal Video Endoscopy
- Combined LBPH and SVM to classify the original data set and the amplified data set
- Compared the classification results, the data set amplified by ConSinGAN is improved by 5% than original data set

Implementation of Recommender Systems *02/2022 - 03/2022*

- Implemented and evaluated Collaborative Filtering, Content Based and Hybrid Recommender Systems
- Cleaned and preprocessed 5-core subset in the Software category of the Amazon Review Data
- Used Rank-based Utility Measures to evaluate the recommendations of each recommender system, the hybrid recommender system based on weighted strategy and TF-IDF model have best performance

WORK EXPERIENCES

Internship - Hangzhou Zhijian Technology Co., Ltd. Hangzhou, China *07/2019 - 09/2019*

- Participated in the transportation portion of the Smart City Brain project in cooperation with the government
- Used ETL tools to filter demand data from multi-source traffic big data such as taxi GPS, ground sensing coil
- Integrated road traffic information such as traffic light status to help ambulances to reach the hospital quickly
- Cooperated with the transportation department to deal with emergencies such as car accidents, and conducted a global real-time analysis of the entire city to alleviate road congestion

SKILLS & INTERESTS

- Computer Skills: C, C++, Java, Python, Javascript, Solidity
- Interests: tennis, violin, oil painting