Zeyang Bao

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EDUCATION

Rutgers University, New Brunswick, U.S.   *09/2016-06/2020*
B.S. in Computer Science, GPA: 3.94/4.0 & B.S. in Mathematics, GPA: 3.83/4.0
The Hong Kong University of Science and Technology, Hongkong, China   01*/2018-06/2018*
Exchange Program in Computer Science and Engineering, Major GPA: 4.0/4.0

PROFESSIONAL EXPERIENCE

OPPO Shanghai Research Institute   *09/2020-Present*
Deep Learning Research Intern
o *Conducted experiments on applying Self-supervised & Weak-Supervised Learning algorithms on cross-modal task*
o *Extracted relations in raw text to build Knowledge Graph, improved accuracy of fuzzy query by +10%*
o *Built a large-scale cross-modal retrieval system, launched for over 2M users*

Rutgers University, Sheng Wei Lab   09*/2018-06/2020*
VR Video Real Time Analysis and Prediction
o Designed a system using computer vision and reinforcement learning to predict the users' field of vision with the goal of a reduction in bandwidth while transmitting video
o Preprocessed the video data with cv2 and wrote a pipeline to process the data into the format of a form
o Designed a structure of a deep convolutional network to separately identify the object and created a reinforcement learning model for conducting user behavioral predictions

Rutgers University, **Yongfeng Zhang**, **WISE Lab**   *06/2019-08/2019*
Logic Module Recommendation System
o *Designed a novel recommendation algorithm by integrating entity knowledge graph, lift NDCG +3%*
o *Predicted user-product connection path in KG with deep neural network, distilled those sets of knowledge to improve user & item embedding's quality*
o *Conducted experiments on variant negative sampling & hard example mining methods*

Rutgers University, Kang Li Lab   *07/2018-05/2019*
*AI Based Running Robot (*NIPS 2018 Challenge*)*
o Designed an algorithm and system to automate robot learning via deep reinforcement learning and system control
o Wrote the deep reinforcement learning models such as DDPG and SAC and an advanced path prediction model similar to that of WaveNet and PlaNet, rewrote another framework via Python, and tested the model in Gazebo

The Hong Kong University of Science and Technology, Kani Chen Lab   *02/2018-06/2018*
Statistical Analysis of Competition Data
o *Programmed using Python to crawl and cleaned the last ten years of data from websites to formulate the data into a usable format*
o *Utilized statistics and machine learning methods like neural network and SVM to analyze data and designed a model to predict the jockey competition*

PUBLICATION & ACADEMIC ACTIVITIES

o X. Feng, **Z. Bao** and S. We. Exploring CNN-based Viewport Prediction For Live Virtual Reality Streaming. In 2019 IEEE International Conference on Artificial Intelligence and Virtual Reality (AIVR). pp. 183–1833.
o X. Feng , **Z. Bao** and S. We. LiveObj. Object Semantics-based Viewport Prediction for Live 360-Degree Video Streaming. In 2021 IEEE VR.
o **Z. Bao**. AI Based Robot Convergence Acceleration. In 15th Annual Undergraduate Research Symposium.

HONORS & AWARDS

Rutgers SAS Excellence Award – The Rutgers College Scholarship   *2019*
Rutgers Aresty Research Fellowship Student Award   *2018*
Dean's List Scholar   *2016-2020*

ACTIVITIES

Backend Developer, Rutgers RU Plus   *06/2017-02/2018*
Rutgers IEEE Machine Learning and A.I. Division   *2017-2020*