Zheng Chu

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Education

Ph.D. in Computer Application Technology, Xinjiang University, Urumqi, China	2018-2021
M.S. in Software Engineering, Xinjiang University, Urumqi, China	2015-2018
B.S. in Software Engineering, Xinjiang University, Urumqi, China	2010-2014

Research Interests

AI: machine learning, deep learning

AI for System: (i.e., performance prediction for stream processing task, execution time prediction for query task in graph database)

AI for Agriculture: (i.e., rice yield prediction)

Work Experience

Machina Learning Algorithm Engineer, Guangzhou Huizhi Communication Technology Co., Ltd, Guangzhou, China	2017-2018
Software Development Engineer, Guangzhou Huizhi Communication Technology Co., Ltd, Guangzhou, China	2016-2017
Data Analyst, China Unicom, Urumqi, China	2014-2015
Software Development Engineer (Intern), Urumqi PalmSoft Electronic Information Technology Co., Ltd., Urumqi, China	2012-2014

Research Experience

Xinjiang University, Prof. Yu Jiong	2018-2021

Research on Performance Evaluation and Prediction for Stream Processing Tasks [1], [2], [3], [4]

Execution Time Prediction for Query Task in Graph Database using Deep Learning [5]

Rice Yield Prediction with End-to-end Model using Deep Learning Fusion [6]

Xinjiang University, Prof. Yu Jiong	2015-2016

Parallel Access Strategy for Large Data Objects based on RamCloud [7], [8], [9], [10]

Skills

Programming: Python, JAVA, SQL, LaTex

Distributed system: Hadoop ecosystems (i.e., HDFS, Hive, Hbase, etc.), RamCloud, Apache Flink, Kafka

Frameworks: PyTorch, Keras, Scikit-learn, Pandas, Spring, Struts, Hibernates

Awards & Honors

Outstanding Doctoral Dissertation Award	2021
Outstanding Graduate Model Award	2021
Outstanding Graduate Award	2021
First-class Academic Scholarship	2020
Scholarship of Xinjiang Uygur Autonomous Region	2020
First-class Academic Scholarship	2019
Scholarship of Xinjiang Uygur Autonomous Region	2018
First-class Academic Scholarship	2018
Scholarship of Xinjiang Uygur Autonomous Region	2017
Second-class Academic Scholarship	2017
School-level Outstanding Student Leader Award	2017
First-class Academic Scholarship	2016
College-level Outstanding Student Leader Award	2016
First-class Academic Scholarship	2015
Second-class Academic Scholarship	2013

Second-class Academic Scholarship	2012
China Chengdu International Software Design and Application Competition Individual Group Excellence Award	2012
Second-class Academic Scholarship	2011
China Chengdu International Software Design and Application Competition Java Group Excellence Award	2011
Second-class Academic Scholarship	2010

Publications

[1] **Chu Z**[*], Yu J, Hamdulla A. LPG-model: A novel model for throughput prediction in stream processing, using a light gradient boosting machine, incremental principal component analysis, and deep gated recurrent unit network[J]. *Information Sciences*, 2020, 535:107-129. (JCR Q1, IF 5.910, **Top Journal**, CCF B). URL: *Link*

[2] **Chu Z**[*], Yu J, Hamdulla A. Maximum Sustainable Throughput Evaluation Using an Adaptive Method for Stream Processing Platforms[J]. *IEEE Access*, 2020, 8(99):40977-40988. (JCR Q1, IF 4.098). URL: *Link*

[3] **Chu Z**[*], Yu J. Performance Prediction Based on Random Forest for the Stream Processing Checkpoint [J]. *Journal of Electronics and Information Technology*, 2020, 42(6): 1452-1459. (EI, ESCI). URL: *Link*

[4] **Chu Z**[*], Yu J, Hamdulla A. Throughput prediction based on ExtraTree for stream processing tasks[J]. *Computer Science and Information Systems*, 2020, 18:31-31. (JCR Q2, IF 0.742). URL: *Link*

[5] **Chu Z**[*], Yu J and Hamdulla A. A novel deep learning method for query task execution time prediction in graph database[J]. *Future Generation Computer Systems*, 2020, 112: 534-548. (JCR Q1, IF 6.125, **Top Journal,** CCF C). URL: *Link*

[6] **Chu Z**[*], Yu J. An end-to-end model for rice yield prediction using deep learning fusion[J]. *Computers and Electronics in Agriculture*, 2020, 174:105471. (JCR Q1, IF 3.858, **Top Journal**). URL: *Link*

[7] **Chu Z**, Yu J[*], Lu L, etl. Parallel access strategy for big data objects based on RAMCloud [J]. *Journal of Computer Applications*, 2016, 36(6):1526-1532. URL: *Link*

[8] **Chu Z**, Yu J[*], Wang J Y, etl. Construction method of mobile application similarity matrix based on latent Dirichlet allocation topic model [J]. *Journal of Computer Applications*, 2017, 37(4):1075-1082. URL: *Link*

[9] Wang J Y, Zhang Z Y[*], **Chu Z,** etl. A trajectory data density partition based distributed parallel clustering method. *Journal of University of Science and Technology of China*, 2018,48(01):47-56. URL: *Link*

[10] **Chu Z**. Parallel access strategy for big data objects based on RAMCloud [D]. *Xinjiang University*, 2018.

Software Copyright

[1] Management System based on EXT for Graduate V1.0 (No: 2016SR241820)

[2] Quality Information System for Middle School Student V1.0 (No. 2017SR445164)

Research Projects

[1] Research on optimization for configurations on stream processing platform (No.XJUBSCX-201901), Science and Technology Innovation Project for Doctoral Students, Xinjiang University, 2019-2021, Host.