Shunchi Zhou

480.787.9252 • szhou82@asu.edu• linkedin.com/in/shunchi-zhou/• shunchizhou.com

SUMMARY

Master's degree in Computer Science at Ira A. Fulton Schools of Engineering, Arizona State University, with a B.S.E. in Software Engineering. A passionate software developer with experience in the Back-end Server Development, Data Mining, Machine Learning, Distributed Database Systems, Android Application Development, and so on.

EDUCATION

M.C.S., Computer Science (Big Data Systems)   Aug. 2018 - May. 2020
Arizona State University, Tempe, AZ

B.S.E., Software Engineering   Sept. 2013 - Jun.2017
Nantong University, China

TECHNICAL SKILLS

Programming Skills: Java, Python (pandas, numpy, scikit-learn, matplotlab, flask, pytorch), C++, Scala, JavaScript
Database Systems: SQL, MySQL, Hadoop, Spark, PostgreSQL
Others: Spring Framework, D3.js (Data Visualization), AWS, Git, Shell Scripting, Android Development, MATLAB, Docker

PROJECTS EXPERIENCE

The implementation of Bigtable-like DBMS based on RDBMS Using Java   2020.01 - 2020.05
- Designed and implemented a typical RDBMS consisting of Disk Space Management, Buffer Management, Transaction Management, B+ tree and Hash-based Indexing, Query Evaluation, and Exception handling modules
- Used modules of RDBMS as building blocks for the Bigtable-like DBMS which stored map-like records indexed by row key, column key, value key, and timestamp
- The completed Bigtable-like DBMS supported insertion, deletion, modification to the map-like records of big tables, queries based on row, column, value, timestamp filters table, and I/O counts of queries

Geo-spatial Hotspot Analysis based on Hadoop and Spark Using Scala language   2019.08 - 2019.12
- Deployed Apache Spark in a Hadoop cluster on the AWS, implemented functions to do spatial queries and hot spot analysis on the dataset of New York City Yellow Cab Taxi Trip Data
- Hot zone analysis: performed a range join operation on a rectangle dataset and a point dataset to obtain the number of points located within the rectangle; calculated the hotness of all the rectangles
- Hot cell analysis: identified statistically significant spatial hot spots using Getis-Ord G_i^* statistic

Human Activity Recognition from Myo sensors   2019.01 - 2019.05
- A computing system that can understand human activities: identify known activities, segment sequence of activities, and identify unknown activities
- Data collection: wore Myo wristband to record activities with timestamps. Feature extraction: extracted statistical features . Dimension reduction: Principal Component Analysis (PCA), Singular Value Decomposition (SVD)
- Trained Decision Tree Classifier (DTS), Support Vector Machines (SVM), and Artificial Neural Networks (ANN) with the training data and then use the test data to report accuracy

T-LeadLine: Interactive Visual Analysis of Textual Data (Topic Discovery & Event Exploration)   2018.08 - 2018.12
- A textual data driven event identification and exploration system
- Topic model building, events extracting and summarizing with the format of abstraction, spatial-temporal information and related person network, extended with topic ranking feature
- Major techniques including Named-entity Recognition (NER), Latent Dirichlet Allocation (LDA), detecting topic burst change (CUSUM), finding time-sensitive terms of given topic and time (TFIDF) and visualizing results with D3.js

WORK EXPERIENCE

Arizona State University, Graduate Service Assistant (Part-time)   2019.08 - 2019.12
- Provided academic support for undergraduates in programming skills
- Assisted with communication between professor and students

HONORS

- Scholarships for Students Studying Abroad in Engineering at The University of Manchester, UK