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Longchao Zhu

Focus On Middleware, Distributed Application And Big Data Application

Work Experience

2017.01-now Lenovo RT, AR Team, Computing Platform Architect.

- Responsible for offline trained system of 3D reconstruction based on video.
- Responsible for cloud recognization system based on rgb frame input.
- Responsible for AR resource recommedation system based on user behavior logs.
- Responsible for maintenence of big data and computing components cluster.
- o Responsible for Delployment and Log injection of AR cloud platform based on Spring Cloud

2015.10–2017.01 Alibaba, Platform Technical Department, Senior Engineer.

- Responsible for the specified item recommedation project to specified user in 1111.
- Develop the project of sima/detail/cart/buy system optimization.

2011.02–2015.10 CSSRC, Platform Research Department, Architect.

- Responsible for the software product development of IBMS.
- Responsible for 3D Rendering Engine to show CAD file in android platform.
- Responsible for the software product development of TDM.

2009.01–2011.02 CSSRC, Platform Research Department, Senior Engineer.

• Develop and maintain the GIS platform(XEIZ)

2007.01–2009.01 **CSSRC**, Engineer.

• Develop the undergroud pipeline management system of GIS platform(XEIZ).

Enducation

2003.09–2006.03 Master, Jiangnan University, Computer Application Technology, Oracle-OCP.

1999.09–2003.07 Bachelor, Nanjing Audit University, Information Management And Information System.

Project Experience

2017.08-Now Cloud Recognization Platform based on CNN and Bow, Leader, Demo.

- Develop the computing flow of encode image to vector using inception-v4 cnn model in tensorflow framwork.
- Develop the image index server using faiss library, which is privde rpc service using grpc.
- Develop the distributed search server to call image index server.

2017.03-2017.07 Cloud Recognization Platform based on post computation , Leader.

- o Develop the distributed image search framework using netty.
- Develop the model realtime processing platform, mysql(binlog)->rocketmq->jstorm->configcenter.
- o Listenr on datanode of config center,refresh model(3D sparse model) in to memory which datanode is changed
- o Let all model can be loaded in different searching node fairly, we use consistently hash algorith.
- The search nodes can be added or removed automatically.

2017.01–2017.05 Offline trained System of 3D reconstruction based on video, 2017 techworld core project, Architect.

- Develop the distributed offline job platform(job is isolated, computing node is load balance, job can be transfered to other node when the current node is down).
- Capature the key frame from video, Extract the feature point using sift.
- Match the feature point of diffrent frame, refine the match result using RANSAC.
- Computing the 3D location of feature point using camera parameter and match result.
- Train the sparse model using 3D point and match result.

2017.04–Now AR resource recommedation system, Leader.

- Develop the log collection sdk of javascript version and java version ,each is for web page and android application, log is record in nginx.
- Develop the log offline analysis system(log->flume->hdfs->hbase->mysql)
- Develop the log realtime analysis system(log->flume->rocketmq->jstorm->redis)
- Develop the AR resource metrics monitor system.
- Develop the AR recommedation system based on user access log.

2017.01 - Now Development and Maintenence of Big Data Cluster and Application, Leader.

- Development and Maitenence of hadoop cluster, hbase cluster, spark cluster, zookeeper cluster, rocketmq cluster, jstorm cluster, els cluster etc.
- Metrics monitor of cluster, collect metrics in time sequence database (prometheus), show the metrics dashboard in grafana

2017.01 - Now **Development and Deployment of Distributed AR Application**.

- Log injection in spring cloud business components, Deploy spring cloud business components.
- Develop spring cloud components of zuul, feign,eureka,config center,hystrix,sleuth,zipkin.

2016.05–2016.11 Specified product recommedation system for specified user, Alibaba 1111 core Project, Tech Leader.

- Add the log record in cart and buy system.
- Deliver the specified promotion for specified item for specified user in specified time.
- The item order in sima system is decide by item feature and user preference

2016.01–2016.05 Sima/detail/cart/buy system optimization project, Memeber, Demo.

- Split the big seller database using yugong (binlog).
- o Add local cache for some hot item to protect the cache server, the invalidation rule of local cache is QPS+LRU.
- Reduce the rpc calling count to optimze the qps threshold of rpc service

2014.07–2015.02 **3D rendering engine in android platform**, leader, Demo.

- Design the light format of cad file .
- Develop the parsing module of light format file to logical model
- Develop the module of converting the logical model to physical showing model .
- Develop the 3d rendering view using opengles in android
- Optimize the showing frame performance per second using vetex buffer etc.

2010.03–2012.01 Testing Data Management System, Architect, Demo.

- Develop the framework using struts1.2,spring,hibernate,freemake, jbpm ,etc components.
- Develop the designing db model tool using eclipse emf,data navigation tool using eclipse gef and workflow tool using eclipse gef.
- Develop the original testing data management cluster using hbase.

2008.05-2010.02 **GIS Platform Demo**.

- Develop the service to computing diging area and underground pipeline whether they are cross .
- Develop the 3D rendering tool to show undergroud pipeline
- o Maintain the Oracle spatial database and GeoServer service..