Hanlin He

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Education

The University of Texas at Dallas, Richardson, TX 2016 - 2018
Master of Science in *Computer Science* GPA: 3.8/4.0

Beijing University of Posts and Telecommunications, Beijing, China 2008 - 2012
Bachelor of Engineering in *Computer Science and Technology* GPA: 8/10

Skills

Languages	Java, Scala, C, Python, PL/SQL, OCaml, HTML5/JavaScript/CSS, Prolog, UML
Tools & Systems	Maven, Gradle, GNU Make, Git, SVN, Oracle, MySQL, Linux, Hadoop, Spark
Methodology	Agile (RUP), MVC, OOA & OOD

Work Experience

Technical Writer & Information Engineer in *Huawei Technologies Co., Ltd*, Beijing, China. 2012 - 2015

- Leaded the documentation team to deliver product document for the Huawei SIG system.
- Provided assistance for global service engineer on existing network installation, migration and deployment.
- Organized annual workshops among South America customers and local service engineers, conducting training sessions on system deployment & commissioning as instructor.
- *Outstanding Contribution Individual Prize* in 2013 & 2014.

Projects

Personal Finance & Budget Management Service (Java) 2017/09 - Present

- Adapted object-oriented techniques in system analysis and design, and RUP as software development process.
- Designed and implemented back-end RESTful API using Spring Boot and MVC framework.
- Designed the back-end database with enhanced ER, normalized the database schema to 3NF. Implemented triggers and stored procedures using PL/SQL based on the business rules and back-end design.

Distributed Data Storage System (Java) 2017/02 - 2017/04

- Designed a multi-nodes storage system with both shared and distributed storage based on Dynamo.
- Implemented mutual exclusion of read & write operation on shared storage with Ricart-Agrawala algorithm.
- Implemented dynamic voting algorithm to ensure write consistency during network partitioning and merging.
- Developed a multi-threaded communication interface between nodes using Socket and thread pool architecture.

Mobile Router with OLSR (Python) 2017/07 - 2017/08

- Developed a mobile host supporting OLSR protocol based on RFC 3626.
- Implemented the concurrent message parsing and route management module using Python thread pool executor.
- Implemented a wireless ad hoc network simulator to relay messages and simulate network topology changes.
- Conducted unit tests on all modules using Python standard library unit test framework.

Zillow's Home Value Prediction (Python) 2017/07 - 2017/08

- Analyzed raw data using R. Conducted data cleansing and transformed data into Libsvm format using Python.
- Built and trained model with random forest regression algorithms using Spark MLlib DataFrame-based API.

SIMPL Language Interpreter (OCaml) 2017/02 - 2017/04

- Built an SIMPL language interpreter using OCaml. Implemented the expression evaluator and the compile-time type-safety checker based on large-step semantics and static semantics.
- Extended the imperative SIMPL with functional paradigm (first-class function).