SAUMITRA SHUKLA

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EDUCATION

University of California, Irvine, CA

Sep 2017-Dec 2018

Master of Computer Science

GPA: 3.76/4.00

• *Graduate Coursework*: Machine Learning, Artificial Intelligence, IoT, Operating Systems, Computer Networks, Fundamentals of Algorithms, Data Structures, Principles of Data Management, Computer System Architecture.

VIT University, Vellore, India

Bachelor of Technology in Electronics and Communication Engineering

Jul 2009-May 2013

TECHNICAL SKILLS

- Languages: Java, Python, C++, Solidity
- Databases: Oracle SQL, Amazon DynamoDB, HBase, OpenTSDB.
- Frameworks/Technologies: Apache Phoenix, Apache Zookeeper, Apache Kafka, Apache Spark, AWS, Amazon EC2, Hadoop, Apache ActiveMQ, Apache Tomcat, Hibernate, Spring, RESTful Services, SOAP, SOA, Maven, Ant, Git, Docker, Ethereum

WORK EXPERIENCE

Data Science Intern KLA-TENCOR, CA, USA

Jun 2018-Sep 2018

Technology Stack: Java | Python | Kafka | Spark | HBase | Phoenix | Zookeeper | OpenTSDB | HDFS

Eagle Ingest Pipeline Developed an application (Java & Python) to ingest big data; extract the key features and transmit using Kafka.

- Consumed the messages using Spark Streaming, stored in HBase and validated it against machine generated data.
- Designed application tests the end to end pipeline of the in house developed big data project (PDM).

Timeseries Data Integration: Designed and developed a project to store Time Series Data on HBase.

• Developed project eliminates the use of OpenTSDB, stores the time series data using Apache phoenix, which helps correlate time series and event-based data together. It uses Apache Spark for storing data on HBase, HBase co-processors for batch processing data for compression and aggregation. It helps eliminate OpenTSDB, Grafana for TS data.

Senior Software Engineer

Bank of America, Hyderabad, IN

Jan 2016-Jun 2017

Pioneer Sales Workstation (PSW) - Java | SOA | SOAP | Spring | Hibernate | ActiveMQ | Oracle SQL | Jetty

- Developed low-latency backend services in Java to facilitate real-time trade booking, matching, amendment and cancellation.
- Implemented services transmute the financial data to internal application format, perform necessary calculations, store in Oracle DB and route to .NET GUI for trader's action.

Senior Technical Associate

Jul 2013-Dec 2015

Cash Security Initiative (CSI) – Java | SOA | SOAP | Spring | Hibernate | ActiveMQ | Oracle SQL | Jetty

- Designed and developed individual micro-services in Java for trade security data, trade accounts, core information processing, which process FIXML messages, interact with external systems and take appropriate actions.
- Implemented services handled trade data validation, reconciliation and sequence management for different trade stages.

PROJECTS

Database Management System - C++

Sep 2017-Dec 2017

- Developed a relational record-based file storage database in C++ using unclustered B+ tree on the top of paged file manager and record-based file manager.
- Developed a query engine to support relational operations such as selection, projection, joins and aggregation.
- Implemented a simplified version of buffer manager which significantly helped in reducing disk IOs and, hence, improved performance

iCare, Comprehensive Health Care Monitor - Java | Spring | AWS | IOT | REST | MySQL

Sep 2017-Dec 2017

- Developed an Arduino prototype using Spring boot (RESTful) services. Deployed on AWS with an iOS mobile application as a user interface
- Implemented prototype provides real-time updates for pulse rate, Sp02 and body temperature to their family, the doctors and contacts the emergency services, if necessary.

XV6 (UNIX) - C

Jan 2018-Mar 2018

• Modified the kernel code of a UNIX based operating system and implemented Kernel threads, Mutexes, Semaphores, ps command, process dumps, pipes, per thread variables.

Rainfall Prediction - Regression | Python

Mar 2018-Jun 2018

- Developed a model to predict amount of rainfall at a particular latitude and longitude using satellite based meteorological data.
- After feature selection, mean-subtraction, data normalization implemented random forest, gradient boosting, neural networks, KNN machine learning models to generate the best model for the given data. Ranked 2 out of 35 teams in the Kaggle competition.