KUNDAN KUMAR

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A dedicated, passionate Software Systems Engineer who excels at giving better solutions to clients. Possesses a solid working knowledge of algorithms, data structure, and high-scale applications. A recognized engineer who has been rewarded with greater responsibility throughout his tenure serving customers and working for globally recognized organizations. Actively seeking for full-time opportunities.

Areas of Expertise include:

✓ Build, Test & Deployment	✓ CS Fundamentals	✓ Diagnose, Troubleshoot & Repair
✓ Big Data	✓ Machine & Deep Learning	✓ Client-Server Architectures

EDUCATION

Master of Science, Computer Science, IOWA STATE UNIVERSITY | Ames, IA | Dec. 2016

B.Tech , Electronics & Communication Engineering, BIT SINDRI | India | May 2012

SOFTWARE PROFICIENCIES

Languages & skills: C++, Java, Python, JavaScript, Oracle, SQL, JSP, Unix, Leaflet, D3.js, Pig, HBase, Image Analytics, Spark,Hive,Sqoop,HDFS,Hbase,Scikit-learn, matplotlib,MLlib-Spark,R,Weka,CNN,Matlab,Numpy, Pandas,SVM,Machine Learning, Text & Data Mining.

Database: Sql, Oracle, Teradata, Graph Databases(Titan and Neo4j)   **Software:** Tableau, Theano,weka,keel.

EXPERIENCE & NOTABLE CONTRIBUTIONS

Scalable Systems Research Labs, SF**,** CA   Mar-2017-till date
- Finding relationship between True vs Emulated CNNs.
- Analyzing the ISPs and finding an approach to plot it.

IOWA STATE UNIVERSITY, Ames, IA   Jan. 2015 – Dec. 2016

GRADUATE RESEARCH/TEACHING ASSISTANT

Worked inside self-aware Lab developing detailed software solutions using Python,Numpy,Pandas and Machine & Deep Learning.
- Implemented deep learning technique successfully on human-machine information gathering.
- Estimated Value of Information(VOI) using deep learning methods like CNNs.
- 2D grid world search problem is used to compare DL approach (CNN) with AMDP.
- CNN determined the best question to query that results in the maximum VOI gain **91.33%** of the time

Worked inside of the InTrans Department, developing detailed software solutions using Leaflet, Spark,Python, Pig, Sqoop, Hive, Hadoop file system and Machine Learning.
- Analyzed high volume of data using Hadoop,Pig,Hive and Spark.
- Designed and implemented a scalable solution for managing an immense amount of weather and crash data. The solution was able to handle greater than 4 TB.
- Implemented and Scalable Map-Reduce technique successfully on large datasets.
- Converted data into texture and visualize two different large data in real time on web -browser.
- Developed an interactive data visualization website successfully using Python, D3.js, leaflet.js, polymap.js,crossfilter.js, angular.js, Hadoop, Apache Spark, JavaScript, Neo4J. Used python and unix scripts to read and write on HDFS.
- Analyzed the correlation with two image texture(weather and crash) .

TATA CONSULTANCY SERVICES, Mumbai, India   July 2012 – Dec. 2014
An information technology company offering IT services, business solutions and technology consulting.

SYSTEM ENGINEER

Provided key support to Westpac Bank clients, efficiently resolving any technical issues and updating systems for smoother operation. Additionally, performed research on performance tuning and requirements gathering.
- Analyzed requirements and prototyped the requirements into technical design using ETL tool i.e Informatica.
- Performed successful migrations including:Oracle data warehouse to teradata data warehouse.
- Coordinated with team members ensuring they met all deliverable schedules.
- Excellent ability to gather and understand business requirements and translate into IT solutions with the use of Informatica, Oracle, UNIX and Teradata and tool like Control-M. Performed Clearcase migrations in UNIX and Mainframe.

RELEVANT PROJECT

Internet Traffic Identification using Deep Learning   Iowa *State University Spring 2016*
- Helped for managing load of the server using machine learning/Deep learning.
- Converted digit into image which took from Wireshark.

- Vectorized Image are trained using deep learning technique which predict the traffic from the particular port.

User assistance using Computational perception and deep learning   Iowa *State University Spring 2016*

- Provided automated user assistance using openCV and deep learning.
- Hand gesture is detected by the camera and manipulation is done using OpenCv.
- These gestures images are trained using Deep Learning and done some specified tasks depending on different task..

Text Mining using R   Iowa *State University Fall 2015*

- Load and pre-processed the text data using R library.
- Applied K-means clustering and Hierarchical clustering to get the results.

2048 game using Heuristics Search   *Iowa State University, Fall 2015*

- Developed 2048 game using Java.
- Implemented Heuristics algorithm over India.

Gnutella Network Implementation   *Iowa State University, Spring 2015*

- Developed a peer to peer network which can communicate each other.
- Implemented by using Native api's of C,Core java functionality. Learnt TCP-IP Sockets and Data Structures.

Implementation of Garden's Simulation   *Iowa State University, Fall 2015*

- Developed and simulated Garden's application with Webgl and D3.js

Data Mining Using Weka & Keel.   Iowa State University, 2016

- Applied classification technique and build a model with an accuracy of 82.5%
- Implemented association rule (Apriori Algorithm) to find the association between variables.

AWARDS & PUBLICATIONS

- KG Lore, N Sweet, K Kumar, N Ahmed, S Sarkar Deep value of information estimators for collaborative human-machine information gathering - 2016 ACM/IEEE 7th International Conference on Cyber-Physical Systems (ICCPS)
- Won Award for performance Improvement of FDM stream in GDW in TCS
- 1st prize in the "CSI" event at Techniche' 09, in annual fest at IIT Guwahati.
- 1st prize in Path finder at *Triveni' 10*, B.I.T Sindri.
- 1st prize in Modex (most innovative model) at Sandhaan' 11,B.I.T Sindri
- 2nd prize in JK TYRE BAJA SAE INDIA at BAJA SAE INDIA' 11 in safest vehicle category in all over India.