BALAJI.N IBM
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SUMMARY

- To obtain a challenging position that will excel my skills and experiences. That will provide an opportunity for growth and advancement in IT industry.
- ***Accomplished Intro Hadoop Big Data and Map Reduce, Intro to Data Science, Data Analysis with R in Udacity.***
- ***Having experience in R Studio for Data Analysis and Python.***
- ***Accomplished Data Wrangling with Mongo DB, Exploratory Data Analysis, Data Visualization and D3.js, Real-Time Analytic with Apache Storm in Udacity.***
- ***Accomplished Intro to Artificial Intelligence (Natural Languages processing, Computer Vision), Artificial Intelligence for Robotic in Udacity.***
- ***Accomplished Intro to Machine Learning, Machine Learning: Supervised Learning, Unsupervised Learning and Reinforcement Learning learned in Udacity.***
- *Having experience in* ***Raspberry Pi, ARM Core Architecture*** *and* ***Internet of Things*** *foundation Bluemix.*
- *Having experience in* ***Watson services,*** *Alchemy APIs Speech to text, text to speech, sentiment analysis, alchemy vision.*
- **Microsoft virtual academy** certificated Microsoft technology content learner with course completion content learner Certification.
- Accomplished C# Programming course from Microsoft virtual academy.
- Java Technology course certified by Apollo Computer Education.
- Ability work in fast paced programming environment using C/C++, C# .Net framework, Java and Python.
- Proficient in Web technology skills like HTML, CSS, XML, JavaScript and three tier & two tier Server.
- Developed Apps in Windows Phone 8/8.1, Windows 8 OS apps, Blackberry 10 OS apps and Salesforce apps development.
- Got exposure to Relational Database Management System and practical skills in **Mongo DB**, Oracle, SQL, PL/SQL, MS SQL Server and MS Access.
- Got exposure to Data Structure, Algorithms, Artificial Intelligence, Machine Learning, Hadoop, Data & Object Modelling, Unified Modeling Language, Software Engineer and System Software.
- Highly motivated professional with extraordinary communication skills in interacting with team members and managers.
- Able to adapt at multitasking environment to achieve team goals. Ability to work and influence across groups is essential.
- **Quick learner** with the ability to adapt myself to embrace new technologies.
- **Very Good Team Player** with excellent interpersonal Skills.

CERTIFICATION

Programming in C# Certificated from Microsoft Virtual Academy.
Master of Software Certificated from Apollo Computer Education.
Build Web apps with ASP.NET Certificated by Microsoft Virtual Academy.
Windows Phone App Developer Certificated by Microsoft.

AWARDS

Winner -Windows Phone Mobile application development contest 2012.
Winner - BlackBerry 10 OS app Development challenge 2013.
Winner - Phase one - Intel Innovation App challenge 2013.
Winner - Phase one - Intel Perceptual Computing SDK application development contest 2013.
Winner - Phase one - Intel Real Sense SDK Application Development Contest 2014.
Winner - Phase two - Intel Real Sense SDK Prize Intel NUC Device 2014.
Winner of Contest - Microsoft Azure Challenge 2014.
Winner of Contest - Digit Tech Star one of the Top 10 Developer 2015.

TECHNICAL EXPERTISE

Operating Systems	UNIX, Linux, MAC OSX, Windows.
Web / Application Servers	IIS, Tomcat 5.0, Web Service.
Programming Languages	C/C++, C#, Java, Python, Scala, GO, R, Node.js, Node RED.
Network / Web Technologies	Advanced Computer Network, TCP/IP, Mini-net, Network Simulator-2, HTML, CSS, HTML5 Canvas, jQuery, Ajax, XML.
IoT	ARM Core Architecture, Internet of Thing Foundation, IoT Real-Time Insight, Raspberry Pi, Arduino Uno.
Open Source Technologies	Hadoop, HBASE, Pig, MapReduce, Apache Storm, Zookeeper, Hive, Mongo DB, Apache Spark.
Server Environment	Windows Server 2008, Ubuntu Server 14.
Front End GUI	Java Swing, Java Applets.
Apps Dev	Android, iOS, Windows Phone, Blackberry 10 OS, Sales Force Apps.
Scripting Languages	Object-Oriented JavaScript, C# Script.
Modeling Languages & Tools	UML, Microsoft Visio.
Statistics	Inferential Statistics, Descriptive Statistics.
Data	Big Data Hadoop, IBM Watson Analytics, IBM SPSS, Hive, Mongo DB, MySQL, NoSQL, PostgreSQL, MS Excel.
Data Science	Data Wrangling, EDA, Apache Spark, Storm, HDFS, Hadoop, Watson text Analysis, Watson trade Analysis, Data Visualization, Real Time Analytics, Predictive Analytics, Big Data Analytics, R & R Studio, Map Reduce.
Data Science Tools	R & R Studio, IBM Watson Analytics, IBM SPSS, MATLAP, Stata 12, Octave, Azure ML, Python, Apache Spark, Storm, Mongo DB, Hadoop.
Knowledge-Based AI	Artificial Intelligence, Artificial Intelligence for Robotic (Vehicle), Machine Learning, Computer Vision, Natural Language Processing.
IDE	Visual Studio 2015, Eclipse, Net Beans 5.0, Android Studio.
Project Management	Agile methodology, Software Life Cycle, Software Testing, Software Debugging.
Graphics Tools	Dream Weaver, Unity 3d, Blender, Adobe Photoshop, Adobe Reader.
Office Tools & editors	MS Office Professional Plus 2013, Sublime Text, ATOM, Paint, Text Editor, Word, PowerPoint, Access, Front Page, Out Look.

PROFESSIONAL EXPERIENCE

COMPANY - **IBM Innovation Center, Bangalore**
DURATION - 01 OCT' 2015 - 20 OCT' 2015
ROLE - PROJECT TRAINEE INTERNSHIP
PROJECT - **Herat Risk Predictive Analytical with IBM SPSS**

IBM SPSS is used to build predictive analytical for find heart risk. This project is build based patient data and IoT ECG simulator data. IoT ECG simulator will generating heart risk singles. IBM SPSS classification model C 5.0 decision tree model is used for building the prediction.

Responsibilities:

- Creating the model for predictive analytics and find the right modeling tools for prediction with great accuracy percentage.
- Creating IoT-(Internet of Things) ECG Simulator in Internet of things foundation from Bluemix and the collected ECG data stored in Bluemix Cloudant.
- Connect Bluemix to SPSS for source data patient data as well as ECG data for developing prediction model. Using type node and partition node to set the target attribute and setting amount of data for testing & training.
- Getting the user input data and prediction result to build and deploy in Bluemix. Creating finally stream file for deployment in Bluemix.
- Once the finally stream file is ready then deploy into Bluemix with node.js web app. Using user input to predict heart failure risk with help of IBM SPSS Stream solution on Bluemix.

Environment: IBM Bluemix, Dash dB, IBM SPSS, C 5.0 modeling, IBM WebSphere 6.1, ECG IoT Simulator, Node RED, Cloudant, node.js, web app, predictive analytics, IBM Tester deploy, deployed in Bluemix.

COMPANY	-	**IBM Innovation Center, Bangalore**
DURATION	-	28 OCT' 2015 – 20 NOV' 2015
ROLE	-	PROJECT TRAINEE INTERNSHIP
PROJECT	-	**Raspberry PI with IoT Foundation in Bluemix**

This project involved configure the Raspberry PI and registering the PI in IBM Bluemix Internet of Foundation. Once device registered successfully then device ID is used for verifying the device is connected to successfully to the Bluemix cloud.

Responsibilities:

- Configuring the raspberry pi with all setups and getting PI MAC address for registering the PI to Internet of things foundation on IBM Bluemix.
- For registering the raspberry pi to IoT, the initialize library installation done at raspberry pi and then the IoT service is checked at pi.
- Once the service successfully run at Pi. Then device id is used to visualize the device data in IoT foundation.
- For transporting the device data that means the raspberry Pi generated Data to Cloudant using Node RED. Node RED is used to initialize the basic wiring and connecting the IoT node and Cloudant service with all the credentials.
- Once the Node RED configuration is done then the model is deployed. The data generated by raspberry pi will stored at IBM Bluemix Cloudant without your hands get dirty.

Environment: IBM Bluemix, Internet of Things foundation (IoT), ARM Cortex-A7, Raspberry Pi , IoT Device Configuration, Node RED, Cloudant.

COMPANY	-	**IBM Innovation Center, Bangalore**
DURATION	-	25 NOV' 2015 - 21 DEC 2015
ROLE	-	PROJECT TRAINEE INTERNSHIP
PROJECT	-	**Sentiment Analysis with Apache Spark**

This project involved in creating a sentiment analysis using Apache Spark service in IBM Bluemix. The real time tweets are getting by twitter API and then the Scala code filtering the tweets and only taken the sentiment emotional tweets. The data visualization done by python code. Using plots the prediction result is plotted by bar chart and pie chart.

Responsibilities:

- Creating an Apache Spark service in IBM Bluemix and creating an instance in apache spark dashboard. Creating a notebooks for loading the Scala code.
- Registering an app in twitter API. And getting the credentials for accessing the tweets from the twitter.
- An input stream from tweet using spark streaming the live tweets are capture and performing the real time sentimental analysis.
- Using Watson tone analyzer to performing the tone analysis on the live stream sentiment tweets.
- Then the processed data is transferred to spark engine then the result data are stored in object storage in Bluemix.
- Then the analysis result is plotted as pie chart and bar chart using data visualization by python module.

Environment: IBM Bluemix cloud, Spark Streaming, Watson Tone Analyzer, Jupyter Notebooks, Scala Code, Python Data visualization Module, Twitter API, Object Storage.

RESEARCH PAPER

EMPLOYEMENT	-	**College Research Paper**
DURATION	-	JUN' 2014 – Till Now
DOMAIN	-	**ARTIFICIAL INTELLIGENT ROBOTICS**
TITLE	-	**Autonomous Intelligent Robotic and System: Architecture with Mobility Services**

This paper presents the platform for autonomous vehicle architecture, controls of the system and vehicle navigation optimization. The basic approach is to develop an intelligent agent to create a safety journey and also creating the future transportation. The Goal is to eliminate the human driving error and saving the human life from an accident. Autonomous Intelligent AI Robot is concept of future transportation with full automation and self-learning. The Velodyne laser sensor is used for obstacle detection and autonomously navigation ground vehicles. In this proposal, a barrier of existing system, accessibility will be eliminated. The agent also include many facilities like virtual reality will help the user to learn driving, the augment reality technology is used to fast controlling in manual driving, especially for race drivers to creating lap timing and trainee you as a race driver.

Responsibilities:

- Responsibilities for Research workflow Management and creating & Developing the appropriate Design and implementation of Simulation for the Autonomous Vehicle in C Sharp Language.

- Create the Future Transportation with fully autonomous navigation vehicle and self-learning mechanism. Adding Mobility service and cloud service to accessing and use the vehicle more efficiently.
- Organizing and coordinating the research and development.

Environment: Autonomous, LIDAR, Stereo Camera, Kalman filter, Hybrid A-Star Search, Intelligent robotic and system, Computer Vision, Machine Learning, Automatic Car.

PROJECT

EMPLOYEMENT - **Microsoft Azure Challenge 2014**
DURATION - AUG' 2014 – FEB' 2015
ROLE - AZURE CONSULTANT
PROJECT - **Infrastructure as a Service for Organization**

This project involved in creating an Infrastructure as a service for an organization. This will involve creating and configuring the right Windows Server 2008 and Ubuntu Server 2014. Managing load balance between the servers which ensure high availability of services. The Traffic Management is configured between all the servers to ensuring the load balancing happened correctly. Configuring database and make three level of replication for high availability of data available. Creating a same server in different Geo location in order to make handling and transferring the services faster.

Responsibilities:

- Responsibilities for creating and configuring virtual machines in Azure. Also installing and configuring the required software.
- Deploy windows server 2008 VM, Ubuntu server VM in Microsoft Azure and deploying Hard disk for storing data.
- Organizing and coordinating the project development.

Environment: Windows Azure, C#.NET, Visual Studio 2013 Ultimate, Windows Server 2008, IIS 5.1 Server, Ubuntu Server 14, Putty.

EMPLOYEMENT - **College Course Project**
DURATION - AUG' 2014 – SEP' 2014
ROLE - DATA ANALYSIS
PROJECT - **Finding Airline Delay using R Studio**

The project involved in the Analysis of Airline delay with different aspects, first step is to learn the giving data set with its field and check whether the data set having some missed or null values. If it's so, then do the data wrangling process for eliminating missing values by filling appropriate value. Using R studio to predicting the airline delay with different aspect like delay in airtime, weather, emergency landing and tack-off, emergency check-up, cargo filling delay, dispatching cargo delay, delay in flight take-off, etc. To use this data attribute values and predicting which aspect makes more delay and how effect the airline service. The result is plotted in R studio by using ggplot2. Finding distribution between mean, median and mode delay of flights. The box-plot graph shows the result this distribution in a more understandable manner.

Responsibilities:

- Responsibilities for analysis the given data set and plot the result using appropriate graphs to presenting the end result.
- Organizing and coordinating the project development.

Environment: R, R Studio, ggplot2.

EDUCATION

- **M.Tech (Computer Science and Engineering) - *VIT University*, Chennai. 8.4/10 CGPA, 3.36/4 CGPA.**
- **B.E (Computer Science and Engineering) - *Anna University Affiliated Sri Sairam Institute of Technology*, Chennai. 6.92 CGPA.**
- **Diploma (Computer Engineering) - *Dr. M. G. R. Polytechnic College*, Arni. 89%.**

REFERENCE

- Reference will be available on request.
- GitHub: http://balajincse.github.io/
- LinkedIn: https://www.linkedin.com/in/nbalajibi
- Twitter: @Balaji_BI