NIHANTH DARA
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PROFESSIONAL EXPERIENCE & PROJECTS

➢ **Software Engineer II, Ooyala**, Dallas, TX   February 2016 – Present
● **LVP (Live Video Platform)**
  Skills: Go, Activiti, Datadog, SumoLogic, Docker, AWS Elemental, Azure Media Services
  Developing solutions to provide customer with a highly scalable and robust orchestration tool to meet their requirement for Live Video streaming. We use Activiti based workflows to orchestrate the process of encoding, packaging and delivery of the live streams via different third party services such as AWS Elemental, Microsoft's Azure.

● **OIS (Ooyala Ingestion Service)**
  Skills: Ruby, Chef, Datadog, SumoLogic, S3, Cassandra
  Developed a new generation ingestion service to overcome challenges like single point of failure, scalability, throttling and heavy infrastructure. Worked on cloud based solution which improved the overall performance by 40% and maintainability of the system. Developed several tools to further decrease the effort of maintenance and support by 80%.

● **Auto Closed Captions**
  Skills: Ruby, S3, Azure Media Indexer 2, Google's Cloud Translate
  As a hackathon project I developed a solution for extracting Closed Captions in multiple languages. The audio track from the video would be extracted and sent to Azure Media Indexer 2 for extracting the Closed Captions in TTML. Extracted Closed Captions would then be translated into desired languages using Google's Cloud Translate.

● **Classification of Live Stream for Mid-Roll Ads**
  Skills: Go, Azure Video Indexer, Activiti, Azure Media Services
  As part of hackathon I developed Activiti workflow to trim the live stream into 1 minute clips using Azure Media Services. These clips would be processed by Azure Video indexer to extract the metadata. Extracted categories from metadata would then be used to find out the category that will be used to target the advertisement in mid roll ads.

➢ **Software Engineer Intern, Ooyala**, Dallas, TX   May 2015 – December 2015
● **WATSON (Ooyala Transcoding Service)**
  Skills: Groovy, Ooyala Flex, Elemental
  Developed REST based plugins for different Encoding Engines which encodes an ingested media to several media formats that would help in streaming on different electronic devices. It is integrated with Ooyala Flex (Asset and Workflow management tool) and Elemental Cloud service.

➢ **Application Programmer Analyst Intern (PHP Developer), Ant Farm Digital Studios**, Dallas, TX   June 2014 – May 2015
● **my24hourphysicians.com (Health Care)**
  Skills: PHP, AWS, MySQL, Java Script, JQuery, HTML, CSS, GIT, Jira
  Developing & maintaining end to end CodeIgniter PHP product on Amazon Web Services. Responsible for providing technology support to Ant Farm Digital's clients. (24hourphysicians.com)

➢ **Member Technical (Web Developer), Automatic Data Processing (ADP)**, India   July 2011 – July 2013
  Roles: Java Developer, Server, Database and Release Process Administrator in agile development environment.
● **Transport Management Tool**
  Goal: A tool to control the transport related activities in ADP.
  Skills: Java, Struts, Oracle 10g, Java Script, JQuery, HTML, CSS, RedHat
  Developed the tool for assigning vehicles to employees based on their home address. Provided an interface for the logistics team to handle ad-hoc requests and feed cab-log sheet directly into the system making their life easier.

● **Space Management Tool, Associate Desk and Conference Room Locator Tool**
  Goal: A tool to monitor space related activities in ADP.
  Skills: Java, Struts, Oracle 10g, Java Script, JQuery, HTML, CSS, AutoCAD
  Initiated by me and developed this tool using **ImageMapster** JQuery plug-in. This impacted in decreasing the physical searching time for associates. It also shows the occupancy status of a floor in pictorial manner with accurate data and several other reports, thus helping the Facilities Team to handle space efficiently.

● **Tax Management Tool**
  Goal: A tool for declaring and managing taxes for Payroll.
  Skills: Java, Struts, Oracle 10g, Java Script, JQuery, HTML, CSS

Developed it for declaring taxes and flexible benefits online for the employees. This helped in maintaining the data on tool and decreased the time for payroll generation with the help of several weekly and monthly automated reports for the HR. Made life easier for employees by providing pdf reports to submit soft copies.

ACADEMIC & PERSONAL PROJECTS

- **Employee Information Portal**
  Course: Database Design
  Skills: Java, MySQL, Tomcat, Visio, Eclipse, HTML, Java Script, CSS, JQuery
  Goal: To design a company database, and develop a front end application for accessing the database.
  Result: Designed EER (Enhanced-Entity Relationship) diagram and extracted normalized tables from it. Developed front end application using Struts Framework and MySQL database along with dynamic access controlling techniques using the custom tag library feature.

- **Android App for Remote Door Lock Control**
  Course: Advanced Computer Networks
  Skills: Android, Java, SQLITE3, Apache Server, Raspbian, Cent OS
  Goal: To develop an Android application for locking/unlocking a remote door.
  Result: Built a highly robust and interactive Android application for locking/unlocking a remote door lock by establishing a TCP/IP connection between Android mobile and Raspberry Pi using socket programming. Implemented scheduling at the Raspberry Pi such that door lock would be closed after timeout and even extended this application to support One Time Access.

- **Email Spam Filtering**
  Course: Artificial Intelligence
  Skills: Java, Support Vector Machines
  Goal: To design an Email Spam Filtering tool using Naïve Bayes.
  Result: Developed Email Spam Filtering tool using Naïve Bayes technique and compared the performance with the SVM's (Support Vector Machines). I have even protracted this project for Topic Classification in Emails with the capability of learning on the fly and stemming.

- **Machine Learning & Inferencing Algorithms in Bayesian & Markov Networks**
  Course: Probabilistic Graphical Methods
  Skills: Java
  Goal: To implement algorithms for learning and inferencing in Bayesian & Markov networks.
  Result: Implemented Bucket Elimination, Expectation Maximization (Fully & Partially observable data), Adaptive Sampling, Chow Liu algorithms in Bayesian and Markov Networks for learning & inferencing.

- **Video Analytics Projects**
  Course: Video Analytics
  Skills: C++, Visual Studio, OpenCV

  Goal: Detect objects of a particular color. Count the number of objects and calculate the size of the objects.
  Result: Counted the number of objects and calculated the size of the objects using OpenCV libraries.

  Goal: Detect the activity in a video and live
  Result: Made use of OpenCV library for background subtraction and generated Speed Adaptive Motion History Images for SURF feature extraction. Trained a model using SVM for training and classified the motion into categories like jump, walk, run, hand waving.

EDUCATION

The University of Texas at Dallas, Texas (Masters in Computer Science)	Dec-2015	3.91
JNTUA - Anantapur, India (Bachelor of Engineering, Major: Computer Science & Engineering)	May-2011	3.76

ACHIEVEMENTS

- Received **Ericsson Graduate Fellowship** for outstanding performance.
- **Oracle Certified Professional, Java SE 6 Programmer**.
- Secured **Hall of Fame** award for implementing new ideas.
- Secured **Associate of the Quarter** award for improving application performance.

Other Skills & Tools: Docker, Kubernetes, JBoss, WAMP, Jenkins, UI Debugging, Unit Testing, Shell Scripting, Prometheus, Grafana.

Work Authorization: H1-B Visa (I-140 Approved)