BORN TO PARTY

Project Proposal

For

Born To Party

Team Name: Hexade

Team Members:

1. Bhanu Arora
2. Manoj Ellanti
3. Himanshu Soni
4. Anupama Vijayan
5. Nevhetha Radhamani Shanmugam
6. Upendra Govindagowda

1. Title - Born To Party

2. Summary

Born to party is an Android Mobile Application which will be used as an Assistant to remember the birthdays of our loved ones and not only it reminds the birthdays , but we can do a lot over it like:

We can organize our contacts whose birthdays we like to remember, into 3 groups

- i. Work
- ii. Family
- iii. Friends

A reminder alert will ring on the mobile device 2 days before the birthday and 4 options will be displayed as below

- i. **Send an e-card** - On selecting this option
- ii. **Just Wish** - On selecting this option we will be able to send a customize message to the person on his mobile number and we can even select to send an E-Greeting.
- iii. **Ignore** - On selecting this option reminder will be canceled.
- iv. **Arrange A Bash** - On selecting this option we will get an option to view list of the mutual friends that we have with the person for whom the birthday reminder was set and we can invite the all of them for a Chat session where you can plan the complete birthday bash all together, Share the food options, venue options over the chat.

In the next iteration there will be more categories added to the Reminder Type like

- i. Anniversaries
- ii. Special Occasions

3. Why this works needs to be done

a. Relevance or importance of problem

In our busy routine, we keep forgetting birthday, anniversaries and such personal occasions. So this is an app which will remind the user about the upcoming events, so that he can plan accordingly to celebrate by wishing in a personal message, sending a personal ecard or to organize a party. This app will allow the user to plan actions in advance in case he misses the date due to other engagements.

It takes a lot of effort and time for a group of people to collaborate and organize a party. The organizer will have to contact everyone in his list and ask whether they want to attend the party and how much they are willing to contribute in the logistics involved. This app provides a common platform to

invite people, to assign tasks involved to plan party, a discussion board to share ideas, and many more.

b. Background information to educate the reader
   - A reminder about upcoming personal events. You can also have a calendar view of the events to plan ahead.
   - Options to ignore, wish via a personal message, send a personal ecard or plan a party with people in your list.
   - Can organize/ be part of multiple parties.
   - Will enable you to divide the logistics involved like who is responsible for food, who is responsible for drinks etc.
   - It will give you a discussion board where you can share your ideas.

c. Previous related work by others - literature review with credible sources
   - www.propartyplanner.com by zyscompany.
   - www.kennyham.com/iparty by kennyham.

d. Detailed problem description, as you now understand it

   It is difficult to remember the birthdays or anniversaries or any other personal events of all your friends and family. It is cumbersome to organize a party, to communicate about it with all your friends/family, get RSVPs, share ideas, and divide work among everyone. It is hard to keep track of how is each person contributing to the party, it is very probable to mess up something by missing out something important.

   So we are designing an app which provides a common solution to all these problems. This app will have a calendar view of all upcoming events and let you plan for each. It can also be customized to send you a reminder a particular number of days, so you will have enough time in your hand to plan properly. For each event, it gives you an option to either ignore the reminder or send a personalized saved message or send a personalized ecard or organize a party. While organizing a party the app gives you the choice to add people to a group. You can have a discussion group where you share ideas, a checklist for the party which will list out who is bringing what to the party so that it can ensured that nothing is missing, etc. This enables you to be a part of different parties at the same time and thus ensures you don't miss out anyone's special day.

4. Objectives

Define the scope of work and clearly state the project objectives, including the following :

a. Design specifications in specific, quantitative terms
   - Synchronizes the birthdays of friends and family from the user's address book and reminds them in advance.

- Allows the user to schedule a personalized message or throw a surprise party as per their wish.
- Allows the party organizer to send invites to preferred people.
- Provides the registered users to ignore or accept the invitations.
- Helps the people in the party group to collaborate and plan the party.
- The app has to keep track of the events and buzz them or list them in a reverse chronological order.
- To registered users who have the app installed, the invites are sent directly while other people receive a standard SMS with the link for installation.
- For a particular user, the ignored events are also kept available for them to join later if they have any change of mind.
- If the user opts to wish, he/she can post the wish on the person's Facebook wall or send it via standard SMS, WhatsApp or Gmail.
- For planning the party, the people in the group can volunteer to take responsibilities of tasks they are interested, say, venue and the app helps to keep track of the things that are done and undone at a particular point in time.
- The completed events are also kept in record for some days for immediate reference.

b. Critical design issues, constraints, limitations

A very critical aspect of the project is to decide on the back end for the service. To elaborate on this, we need to identify the service to be used for users to communicate with each other. This service will be responsible for sending the push notifications, managing the friends lists, birthdays, and even the event information. For accommodating these issues, we may choose to use the facebook API to manage the information, or create a backend service from scratch. Another important design consideration is the management of events among the users. We look at making a robust and scalable design so that more suggested activities and features can be introduced in an event. Providing different actions such as, sending an e-card or creating an event in itself are complicated as these may require integration with external services.

5. Approach

a. What are the steps ?

We start by identifying the actors and the actions performed by them on the system. Every user can perform actions such as creation of events, scheduling/sending messages, sending e-cards, invite friends, plan activities. The activities need to be further analyzed to have a proper understanding of the requirements and the use cases. We are going to follow the iterative development cycle with the agile scrum methodology. Once we have understood and have frozen the initial set of requirements, we will create the UML diagrams to model various scenarios and the flow for a use-case. We

will then identify the high-risk or critical design issues and try to tackle them in the first iteration itself.

b. How will you generate solution concepts ?

This process would require identifying the business cases and scope. We will then calculate an estimate for these cases and the right iteration they belong to. We might chose to push some of the requirements to the next iteration, if they are not critical or if they are dependent or certain other cases. The design needs to be robust and scalable since we expected changes with additions/modification.

c. How will you analyze the performance of your solution ?

While developing the set of requirements, we will simultaneously undergo the activity of writing test scenarios and test cases for the requirements. The ideal/responses for an action will be identified and they would be tested in the system for the performance of the system. As an example, when an user creates an event and sends the invites; his friends should be immediately notified of this invitation if they are connected to the system. i.e. There should not be any delay or a case that the invitation was not delivered.
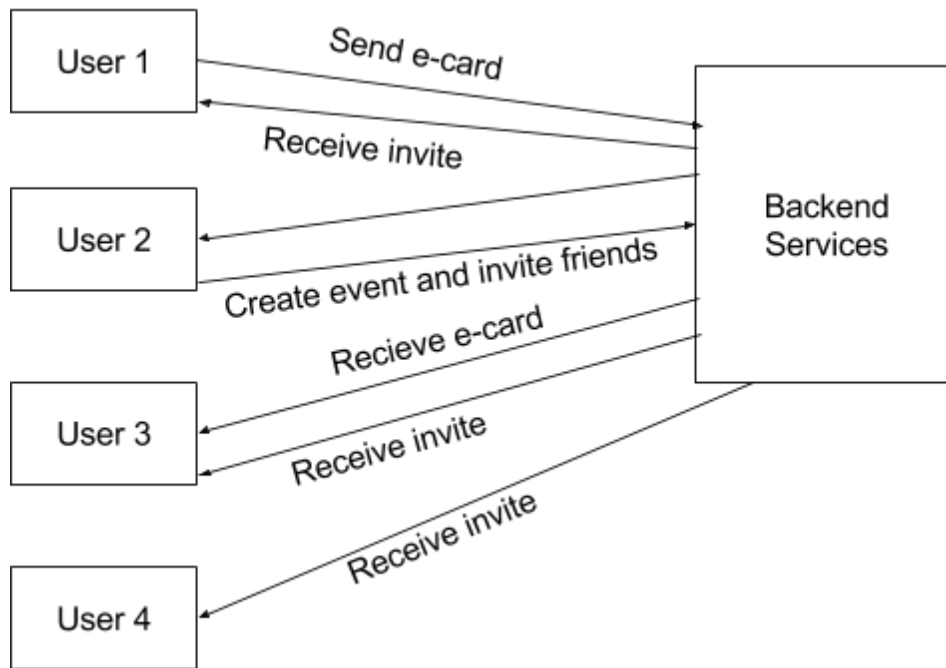
d. What are the alternatives ?

We are focusing on developing a mobile application in the android platform. Instead of developing a mobile solution, we can choose to develop a web app which can serve similar functionality and provide access to the application on all the other platforms like iOS and windows via the browser.
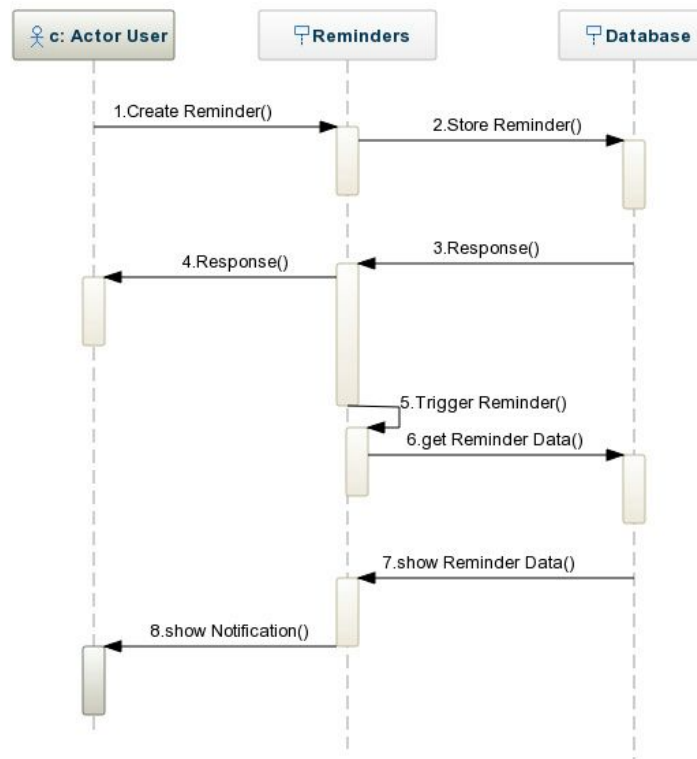
e. How will you decide on the best alternative ? (if your first approach has problems you should be ready to switch to your alternate. To do this switch, you will need to submit a revised "Full Proposal")

We choose to develop a mobile app since this provide ease of access to the user. We are planning to develop the app for android platform initially and after a few iterations, once we achieve most of the requirements we can plan on building the same app in other platform.

Our project heavily depends on the social network model where have a friends list which plays to be a very critical aspect. We have to decide between using facebook API for friends list or maintain a friends list and events database on the back-end server. We will investigate the two alternatives and devise a plan which accommodates all the requirements of our system and is easier to be implemented with less changes needed to be made to our client design.

Architecture

Sequence Diagram

6. Project Management

The project is planned to follow the Scrum flavor of Agile. There will be observable deliverables after every iteration. In each iteration a set of stories is scoped and delivered at the end of that iteration. Trello online project management tool is used track the progress of stories/tasks in every iteration. Project board is shared at https://trello.com/b/CppuOvLP/ooad-project. A tentative project timeline is shown in the below table.

Iteration 0	Iteration 1	Iteration 2	Iteration 3
Jan 29 – Feb 1	Feb 2 - Feb 24	Feb 25 - Mar 23	Mar 24 – Apr18
Brainstorm	Use case workshop	Product backlog update	Product backlog update
Finalize the idea	Use case document	Iteration planning	Iteration planning
Project Proposal Document	Product backlog	Requirements workshop	Requirements workshop
	Project roadmap	Requirements specification document	Requirements specification document
	Iteration planning	Design workshop	Design workshop
	Requirements workshop	Design document	Design document
	Requirements specification document	Development	Development
	Design workshop	Iteration Bash	Iteration Bash
	Design document	Demo	Final Bash
	Setup Code Repository	Retrospective	Final demo
	Knowledge sharing		Team Outing!
	Setup development environment		

	Development		
	Iteration Bash		
	Demo		
	Retrospective		

7. Deliverables

The tentative deliverables on each iteration are as follows.

Ø Iteration 1: (February 22,2016)

1. Initial project backlog, project roadmap, design document.
2. A working app with the home screen and partial event features that are critical to the project.

Ø Iteration 2: (March 20,2016)

1. Updated product backlog based on emerging changes.
2. Working app with contacts synchronized from phone's address book, enabled reminders and some event and people management features.

Ø Iteration 3: (April 18,2016)

1. Updated product backlog based on emerging changes.
2. Working app with event organization features and third-party login.

8. Team Qualification

a. In a paragraph for each person, establish the team qualifications for the project. Highlight any specific job or course experiences that are relevant to the project.

- Bhanu Arora
  I have done Bachelor of Technology in Computer Science from Amity University. I completed my Bachelors in 2013 and since then I have been working with Wipro Technologies. During my job tenure I have worked on technologies like Oracle Identity manager, Oracle Access manager, Oracle Identity Directory, BI publisher and various other Single Sign On generating tools. In Sixth and Eight semester of my Bachelors I made websites using PHP for Front End and SQL as backend.I have studied

Software Engineering and UML which gave me a fair idea about various UML Diagrams and Use Cases.

- ■ Manoj Ellanti
  During my undergrad courses, I took courses like database, software engineering. I know sql, Java. I know basics of android programming and prepared couple of apps. My undergraduate project is on accessing website using Natural Language Techniques.

- ■ Himanshu Soni
  I have been developing mobile applications from my undergraduate program. Further, i hold industry experience in enterprise mobile application development for android and iOS platform. In my graduate program, I have underwent a course in User Interface design and can design UI/UX which comply with the UI/UX aesthetics.

- ■ Anupama Vijayan
  I have taken Database design course and have experience working with SQL in IBM. I have done 3 projects in Java namely designed a CPU, implemented multithreading and Sockets for my Operating System class and have some experience making a web page for a library management system in my web programming language.

- ■ Nevhetha Radhamani Shanmugam
  As a part of my undergraduate curriculum, I've done an online portal for my college using html, php and javascript that helps in managing the leave and a project in VANET.I'm fairly good in sql and UI design. I've also have basic knowledge in android and UML.

- ■ Upendra Govindagowda
  I am Upendra, a graduate student at The University of Texas at Dallas, Richardson, TX, majoring in Computer Science. I bring with me close to five years of relevant work experience as Software Developer at Cisco Video Technologies and as Simulink Development Intern at Mathworks. I worked mainly in the area of Set Top Box (STB) and Digital TV domain. I also have experience submitting patches to large Open Source code bases like Chromium and MongoDB. The enclosed resume provides more details of my skills and achievement track record.

Bhanu Arora
Contact No: +1 4699962759
Email Id: bhanuarora2628@gmail.com
Linkedin Id: https://www.linkedin.com/in/bhanu-arora-770236112

Education:

- **Master of Science in Computer Science**
  University of Texas at Dallas   Expected Year of Graduation: 2018
- **Bachelor of Technology in Computer Science**
  Amity University   Year of Completion: 2009-13
  CGPA – 7.93/10

Work Experience:

Wipro Technologies (2 Years)
Designation: Associate Consultant
Responsibilities:

- Installed and effectively carried out the deployment/configuration of Oracle Identity Manager 11g R2 PS1 and PS2 and Oracle Access Management 11g R2 PS1 and PS2 and its connectors.
- Integrated Single Sign on Applications.

Professional Project-I
Organization: Telenor, Telecom Provider
Subject: OIM & OAM deployment

- Deployed a heavily customized OIM implementation providing automatic access and access requests for systems.

Professional Project-II
Organization: CLK, Energy Provider Company
Subject: OIM & OAM deployment

- Used tools like OIM and OAM to provide centralized authentication and authorization. Worked with the application developers to ensure best practices for security were followed.

Volunteer Experience:

Mohan Foundation NGO(2 Months)
Subject: Conducted seminars in various MNCs for enlightening employees and their families about organ donation and demystifying various myths related to organ donation and worked on managing the database.

Summer Internship & Project

Organization: Online 24*7 Webnet Technologies India Pvt. Ltd.
Subject: Jobs Basket

- **Front End:** PHP **Back End:** My SQL **Environment:** WINDOWS 7

Organization: F-Tec (6 weeks)

- Oracle-SQL acquired knowledge of SQL Functions and privileges.

Professional Skills and Programming Languages:

- Java
- PHP
- Oracle Identity Manager
- Oracle Access Manager

Extra-curricular Activities & Honors:

- Technical Paper Presentation on the Exoskeleton Robot
- Power Point Presentation on Audio Zooming

MANOJ KUMAR ELLANTI

7740 McCallum 154
Richardson, TX 75252
(214)436-3146
mxe150630@utdallas.edu

ACADEMIC PROFILE :

- Masters of Science **Computer Science & Engineering,** 2016-2017
- Bachelor of Technology **Computer Science & Engineering**, May 2015   **CGPA : 7.8/10.0**
   Sri Venkateswara University, Tirupathi, India.

TECHNICAL SKILLS :

Programming Languages	Alp, Java, C/C++, HTML/CSS, python
Applications	MS Office Suite, Adobe Creative Suite, Eclipse IDE, MS Visual Studio.
Operating Systems	Windows XP/7/8, Linux (Ubuntu)
Data Base systems	SQL, Oracle, PL/SQL.

Leadership experience :

- Represented as a General Secretary in Final year B-Tech.
- Project leader of final year project "Accessing TTD website through NLP Techniques".
- Conducted many activities in ACE (Association of computer engineers) in my college.
- Event organizer of "CYNOSURE" Technical fest held in our college during my 3rd year.

Projects undertaken :
- Mini project of "Department Information App" in my under graduation.
- Completed my INTERNSHIP on Android Modules during my summer vacation.
- Mini project on "Exam Results through SMS App" in my under graduation 3rd year.
- Final year project on "Accessing TTD website through NLP Techniques".

Extra curriculum activities :

- Won first prize in "Ramanujan inter school exam" conducted during my 10th standard.
- Won second prize for my Science project on Hydro electrical power during my 10th standard.
- Won many prizes in Debate, Technical quiz and Sports during my school and college days.
- Topper of my District in Nation Wide Energy Conservation Mission conducted by The Institution of Engineers(INDIA).
- Won prizes in extra curriculum activities in Annual college fest "Rhapsody" of our university.

Himanshu Suresh Soni

7740 McCallum Blvd, Apt# 223, Dallas, TX, 75252 | (469) 774 6128 | hss140330@utdallas.edu
https://www.linkedin.com/in/himanshusoni89 | https://github.com/himanshusoni

Education Summary

University of Texas at Dallas, Dallas, TX   August 2015 - Present
Candidate for Master of Science in Computer Science   Expected Graduation: August 2016
Marathwada Institute of Technology, Aurangabad, India   August 2007 - July 2011
Bachelor of Engineering in Computer Science and engineering

Relevant Coursework: Algorithms, Big Data Management and Analytics, Machine Learning, Implementation of Data Structures and Algorithms, User Interface & Mobile app Development, Artificial Intelligence, Database Design
Activities: Founding member of Aurangabad Linux Users' Group

Certifications

- Oracle Certified Professional, Java SE 6 Programmer
- Programming in HTML5 with JavaScript and CSS3 (Microsoft Specialist)

Technical Knowledge

Programming Languages:	Java, JavaScript, C, C++, Python, Objective C, UNIX shell script
Web Technologies:	JSF, JAX-RS, AngularJS, BackboneJS, NodeJS, HTML, CSS, JQuery
Frameworks:	Play, JPA, Android, IOS, Appcelerator, PhoneGap, Ionic
Databases:	MySQL, Oracle, Redis, MongoDB
IDE/Tools:	Git, Eclipse, Android Studio, XCode, Vim, Sublime, Atom, Hadoop, Agile Scrum

Work Experience

Mobile Engineer Intern   Copart Inc., Dallas, TX   May 2015 - Present
- Worked on application architecture and developed reusable components for various modules and for consuming RESTful web services.
- Investigated on the design and developed the app to support phones and tablets of different screen sizes
- Actively participated in side projects where I developed a proposal for mobile app on a new product and Implemented location tracking similar to UBER. Implemented real time in a rails web app using socketio.

Senior Systems Engineer   Infosys Ltd, Pune, India   February 2012 - July 2014
- Built mobile dashboards using HighCharts and AmCharts for iPad and iPhone for Motorola Mobility
- Developed an idea for employee carpooling and worked on building the mobile app in PhoneGap
- Worked on android app proposals for Rio Tinto and Dupont

Academic Projects

Social Graph based Data Mining (Big Data Project)   October - November 2015
Implemented collaborative filtering to build a social graph based recommendations system for the Yelp Dataset Challenge. It involved working on noe4j, Hadoop and Spark for social graph mining.

Applications of Machine Learning Techniques   January - May 2015
Implemented ID3 Decision trees, Naïve Bayesian Classifier & Logistic Regression for Text Classification, Ensemble Methods and Collaborative Filtering on Netflix Dataset in Java.

Implementation of Algorithms & Data Structures Projects   January - May 2015
Implemented Skip List and Graph Algorithms. Implemented data structures and analyzed their performances for very large input data. Implemented Critical Paths in PERT charts using Java

User Interface and Mobile App Development Projects   October - December 2014
Built android game which used mobile sensors. Designed and implemented a Contact Manager for android and desktop using Java Swing. Extensively worked towards designing better aesthetics of UI/UX.

Call manager for Android Devices   January - June 2011
Developed a mobile application for monitoring the phone telephony and filter calls & sms based on the user preference. Some more features spam suggestion and intelligent filtering with location based services.

Anupama Vijayan

469-438-9906| Anupama.Vijayan@utdallas.edu

Education

- **The University of Texas at Dallas, Richardson, Texas**   August 2016(Expected)
  Master of Science in Computer Science   *GPA: 3.83/4.00*
  Relevant Courses: Big Data Management and Analytics, Design and Analysis of Algorithms, Machine Learning, Web Programming Languages, Database Design
- **College of Engineering Trivandrum, Kerala, India**   May 2013
  Bachelor of Technology in Applied Electronics and Instrumentation   *CGPA: 7.94/10*

Technical Skills

Programming Languages	:	Java, UNIX shell script, Python, SQL
Web Technologies	:	HTML, CSS, JavaScript, jQuery, Ajax, JSON, XML, PHP, JSP, Ruby on Rails
Databases	:	MySQL, Oracle, SQL Server
Applications	:	MS Word, Excel, Power Point, Lotus Notes, SharePoint, HPQC
Development Tools	:	Datastage, Cognos, SAP, Eclipse IDE, NetBeans IDE

Work Experience

- ***Lead/Tutor in Computer Science Outreach, The University of Texas at Dallas***   **January 2015-Present**
  - Working as the logistics lead as well as a tutor for CS Outreach, an organization tutoring students from K-Graduate level on Scratch, Alice, JavaScript and Java
- ***IBM India, Kolkata, India   Data Analyst, Application Developer***   **August 2013 – October 2014**
  - Worked as an Application Developer, Data Analyst in a Data warehousing project for British American Tobacco (BAT). Expertize in working with SQL, Datastage, SAP, HPQC and Unix shell coding, including LSMW (Including Creation), data mapping, extracting, transforming, migrating, validating and reconciliation.
  - Trained in Cognos, BI, BAO Method Framework and Data warehousing.

Academic Projects

- ***Post Office simulation***   **Spring 2015**
  A Post Office is simulated by using multiple threads and semaphores to model 50 customers and 3 employees using Java.
- ***Library Management System***   **Summer 2015**
  A web based online Library system with end to end functionalities using MySQL for backend and JSP, HTML, CSS, JQuery, AJAX, PHP for the front end was designed and implemented.
- ***Index based Data Search***   **Summer 2015**
  Implemented a multi-level indexing for large data file. For each key, a HashMap object is created for distinct key and value pair and each such objects are serialized in the index file. The search is done by fetching the index file which is deserialized and is mapped to the binary file data.
- ***Network Communication Using Sockets***   **Spring 2015**
  Using Java Sockets a network communication between processes are established. A web browser was developed which will read from a URL.

Achievements

- *Jonsson School Graduate Study Scholarship*   ***Fall 2015-Spring2016***

NEVHETHA RADHAMANI SHANMUGAM

2200 Waterview Pkwy, APT#25203, Richardson, TX-75080, USA

E-mail: nxr153230@utdallas.edu   Contact: +1-(469) 9962762

PROJECTS

➢ **A VANET BASED AMBULANCE WARNING SYSTEM**

The scope of this project is to pre-empt the traffic except in the direction of the ambulance vehicle. Achieved through Vehicular communication, this system helps the emergency vehicle to use the golden period of a person more effectively. *Supervisor: Dr. Mohanapriya & A. Sumithra, Department of Computer Science Engineering, Sri Krishna College of Engineering and Technology.*

➢ **AN ONLINE PORTAL FOR MANAGING LEAVE**

The main idea behind this project is to automate the process of applying and approving leave through an online portal.

Supervisor: P. Chitra & P. Sampath Kumar, Department of Computer Science Engineering,

Sri Krishna College of Engineering and Technology.

EXPERIENCE

Name of the Industry	Areas of Exposure
HCL Career Development Center, Chennai	Hardware, Networking, and System Administration
Uniq Technology, Chennai	Software platforms
Sri Krishna College of Engineering and Technology, Coimbatore	Android development
IIT (Delhi**) & Network Bulls** (Gurgaon) **at Sri Krishna College of Engineering and Technology,** Coimbatore	Cisco Based training on networks.

PLATFORMS WORKED ON AND LANGUAGES KNOWN

➢ Platforms   :   Windows XP, Windows 7, Windows 8, Mac , Ubuntu

➢ Languages   :   C, C++, Php, Java (Beginner), C# (Beginner)

➢ Databases   :   MySQL

Upendra Govindagowda

upendrag.gowda@gmail.com

2200 Waterview Pkwy Apt 1638, Richardson, TX 75080

+1 (469) 305-8217

Summary:

Graduate student pursuing Masters in Computer Science at The University of Texas at Dallas with 5 years of software development experience looking for full time opportunities in Software Development.

Education:

Master of Science in Computer Science.   Aug 14 – Aug 16 (Exp)

The University of Texas at Dallas, Richardson, TX. GPA 3.93/4.00

Bachelor of Engineering, Electronics and Communication   Sep 05 - Jul 09

Sri Jayachamarajendra College of Engineering (SJCE), Mysore, India. Aggregate 76%

Work Experience:

The Mathworks, Inc., *Software Development Intern – Simulink*   Aug 15 – Jan 16

Worked as part of Simulink Blocks team which provides numerical algorithms and block features for Simulink modelling environment and its automatic code generation capabilities.

Enhanced Relational Operator block with rounding mode parameter. Reduced memory usage of in-memory key/value store by 5 times. Implemented code generation for diagnostic messages in core blocks. Enhanced 20 block icons to use SVG/MathML rendering.

Cisco Video Technologies, *Senior Software Engineer*   Apr 12 – Jul 14

- **StreamViewer:** StreamViewer is an MPEG/DVB stream analysis application that allows users to view, debug or dump digital transmission metadata sent via satellite, cable or terrestrial media. I worked on the implementation of Digital Storage Media Command and Control (DSM-CC) feature.
- **Media Highway Service Information (MH.SI) Analyzer:** MH.SI Analyzer is an application that extracts Electronic Program Guide (EPG) info by querying digital transmission metadata stored in SQLite databases which are transmitted over Media Highway Carousels, a Cisco proprietary protocol. I worked on the development of this tool from scratch.

Cisco Video Technologies, *Software Engineer*   Jul 09 – Mar 12

- **HeadEnd Doctor:** HeadEnd Doctor is a web based tool used to monitor the health of transmission end components of digital TV broadcast. I worked on the implementation of behavioral data capturing and graphical representation modules for HeadEnd Doctor.
- **Root Cause Analysis (RCA) Tracker:** RCA tracker is a web-based tool that automates the data collection for RCA and acts as the central archive for all the RCA's. I worked on the development of this tool.
- **TvTv Guide:** TvTv Guide enables both HeadEnd and system engineers to debug and edit tvtv metadata. "tvtv" standard provides services for the Electronic Program Guides which are transmitted over IP and various other broadcasting media. I worked on the development of this tool.

Open Source Projects

- **Chromium (https://www.chromium.org/):** Exposed website origin information outside the content module. Solved the problem "Security-UX connection info being blank for about:blank page".
- **MongoDB (https://github.com/mongodb/mongo):** MongoDB is a cross-platform document-oriented database. Solved the problem "listCommands returns unordered list".

Academic Projects:

- **Global Internet Simulation:** Simulation of global internet with OSPF as intra-domain routing protocol and BGP with restricted import and export policies as inter-domain routing protocol.
- **Database Files and Indexing Project:** Implemented an index driven database storage system where the data is stored in binary files and retrieved efficiently with the help of relevant index files.
- **VirtualLab:** A cloud based solution for providing Laboratory Infrastructure as a Service developed at Hack_UTD using Amazon Web Services and Jersey RESTful Web Services framework.

Technical Skill Set:

Proficient in **C/C++** with a good knowledge of Object Oriented Programming in **Java** and **Python**. Have a good understanding of Network Protocols such as **TCP/IP, OSPF, BGP**, etc., and have worked with databases **MongoDB, MySQL and SQLite**. Have basic Linux administration and familiar with various development tools. Have a working knowledge of **Web Technologies** and **Android Application Development**.