

Karthik Ponmudi

Senior Software Engineer - XcellFORCE LLC

- Software Development Engineer with 5 years of experience In Design, Development and Implementing Mobile and Client-Server Applications.
- More than 4+ years of experience in Android development.
- More than 3+ years of experience in Play Scala development.
- More than 2+ years of experience in Oracle Mobile Application Framework.
- Diverse experience ranging from mobile manufacturer to enterprise and e-commerce work to start up environments.
- Extensive knowledge on the development and test of Android Applications. Good knowledge on android architecture and design.
- Experienced in interfacing mobile applications with back-end server using web-services based on Java.
- Experienced and responsible for App deployment on Google play store.
- Java Programming experience using various mobile development environments including Android SDK.
- Experience developing and testing products using Java with Eclipse plug-in on the android platform.
- Hands on experience in technologies like Android Apps Development, Java, J2EE, Play framework and Cloud Server
- Hands on experience with Amazon AWS, S3 and Microsoft SharePoint 2007.
- Possess knowledge C, C++, VB 6.0, Java, Oracle 8i, HTML & Manual testing.
- A Person with a notable analytical proficiency and ability to grasp new technical concepts quickly and utilize the same in a productive manner.
- Strong communication, collaboration & team building skills with proficiency at grasping fundamentals.

WORK EXPERIENCE

Senior Software Engineer

XcellFORCE LLC - October 2015 to Present

Web:<https://xcelltracker.com>

play store download: <https://play.google.com/store/apps/details?id=com.xcellforce.xcelltracker&hl=en>

Project Details

XcellTRACKER is an application which has both Web and Mobile module in which the users can add assets, insurance, warranties, documents and claims made for the warranties and insurance and also keep track of them. XcellTRACKER provides way for adding attachments, alerts and tasks. Users will get notified through email and notification in mobile app when the alert date and time is reached. The iOS and Android module is enabled with a sync module through which the data's will get exchanged.

Responsibilities

- Lead of the Development Team.
- Worked on the Sync Protocol design and implementation using AKKA actor system in Play Scala.
- Implemented the Sync Protocol on the mobile side for both consuming and sending back the updated to server.
- Implemented the Supervisor Strategy model for Sending the email updates from the application.
- Worked on the Video upload part from mobile device to the server using Intent Service class.Environment: Windows 7

Technologies: Android (mobile version), Play Scala, Amazon S3, Amazon Transcoder, Akka

XcellCHESS is an application that is used by Chess players, coaches and parents for subscribing to newly added tournaments and coaches will have option for adding a new tournament, pairings etc. The iOS and Android clients have a sync module which takes care of the exchange of data from the server.

Responsibilities• Lead of the Development Team.

- Worked on the Video Streaming functionality created using Amazon Transcoder Service.
- Worked on the Actor model creation which is responsible for the M3U8 creation on the uploaded video which will be streamed using Amazon Cloud Front.

Environment: Windows 7

Technologies: Android (mobile version), Play Scala, Amazon S3, Amazon Transcoder, Akka

Senior Software Engineer

Kenla Systems Pvt Ltd - January 2011 to September 2015

Project Details

WMS (Workshop Management System) software project is mainly focused on creating and tracking student financial aid workshops. The system has a web portal for students to look up and register for nearby workshops, has capability for CSAC/Cash for College host organizations to register workshops, request marketing materials, order supplies, request training, conduct exit surveys, track student performance post workshops, allow hosts to request consideration of site support funds, etc. and allow students to be awarded Scholarships.

Responsibilities

- Lead the Development Team.
- Involved in table creations and setting up the relations between the tables.
- Implemented the Mail sending process using AKKA.NET for sending the emails from application to the users.

Environment: Windows 7

Technologies: Visual Studio 2013 and Team Foundation Server, C#.NET, AKKA.NET, AJAX, AKKA.NET, AJAX, HTML5, CSS3, Bootstrap and JQuery, ORACLE 11g

GoProcure is a mobile app which takes care of an organization's procurement transactions. Using this app a user can search for an item, select items needed, add it to a cart, and then do a checkout. GoProcure internally uses Oracle REST API exposed to create a Requisition which is taken care by Oracle from there. If a user is not able to get the item that they are looking for, they can use the feature called Refined Search, where users can search for items on Categories, Suppliers, Brand, UPC, MPN, etc Users can also attach images while doing a search if they are not able to describe the item in detail based on the search criteria. The buyer will contact the suppliers and send quotes to the user, which are immediately updated to the user using Push notifications (APNS in case of iOS and GCM in case of Android). The user on seeing the Push Notification can login to GoProcure and convert the Quotes to a PO.

Responsibilities

- Lead of the Mobile Development Team.
- Worked on the UI part of the application.
- Implemented the REST service consuming part on the Oracle MAF using REST service adapter part.

Environment: Windows 7, OS X Yosemite

Technologies: Oracle MAF (mobile version), SQLite

Asset Tracker is a mobile app that is developed for a Pets Pharmaceutical company named Merial which is owned by Sanofi Adventis. They use this app for keeping track of the assets which are maintained using Oracle FA module and for doing Asset Transfers from one location to another. This mobile app uses the REST API exposed at the Oracle SOA gateway for doing the Asset Transfer and Cycle Counting (stock inventory of assets). The mobile app is created used using Oracle Mobile Application framework.

Responsibilities

- Lead of the Mobile Development Team.
- Worked on the UI and REST services part of the application.
- Implemented the Java miniature version of the iACCESS SDK created by the internal team for consuming the web services.

Environment: Windows 7, OS X Yosemite

Technologies: Oracle MAF (mobile version), SQLite

IVV (Independent Verification and Validation) - This is a tool used by the California State Independent Verification and Validation team for tracking the Project Findings and Recommendations. This tool also provides logins for the client team to key in their responses to the Findings. This tool has interactive charts that show the statistics of the Findings and Recommendations by various metrics. This tool also has a mobile version implemented using React Native which has the functionality for syncing data.

Responsibilities

- Acted as Development Lead.
- Worked with team for UI and REST layer implementation for exchanging the data to and from the server.
- Implemented the Actor System for REST protocol classes.

Environment: Windows 7, Linux

Technologies: React Native (mobile version), Play Scala, Akka

Yosi is an online test with a repository of questions grouped into different genres. The scores and levels completed are maintained by sending across to a server using web services. Open ID authentication is one of the features.

Responsibilities

- Worked on the UI.
- Implemented REST protocol for consuming the Web Services from the server.
- Used Single Sign On for users logging in to the application.

Environment: Windows 7

Technologies: Android, SQLite3

Health Touch is a hospital network application that brings together patient's information (including clinical data, lab results, and medication) within the hospitals' network. Health Touch enables doctors to manage their day on the go, and stay current on patient information. Doctors can access this information on their mobile devices, and can view patient's Vitals, Prescriptions, Lab Tests and Results, Personal Information, Insurance details and Appointments. Lab Test Images can also be viewed. Doctors can also add Vital Values and Prescriptions through device. Background sync protocol connects to the server to send and receive data.

Responsibilities

- Involved in the Mobile App Design and Development.
- Involved in Sqlite table creation scripts and their relations.
- Involved in creation Intent Service classes for consuming the REST service data coming from Server.
- Making pinch zoom work on the images by writing a small image viewer code which uses a custom Image Viewer for rendering the images.

Environment: Windows 7

Technologies: Android, SQLite3

CampusLink is a web and SMS based connectivity tool that enhances information exchange between students, faculty, parents, and management. By using CampusLink, college management and faculty can significantly improve their operational efficiency and quality of services offered to their key stakeholders (students and parents). Management and faculty can use the portal to communicate critical information to students and parents. Such information can include exam dates, key events, assignments, grading, deadlines, fees payment status and attendance status, to name a few. CampusLink software is integrated with SMS feature, which enables fast and easy communication of such information

Responsibilities

- Mobile UI Design and Development
- Development of REST service classes for consuming web services

Environment: Windows 7

Technologies: Android (mobile version)

Parent Link is a web and mobile based service providing improved connectivity between Schools and Parents in the best interest of children (LKG - Grade 12). Teachers and school management can maintain information (attendance, fees, grades, assignments, etc.) about students using the web based application. Such information as well as important dates and events can be communicated to parents on a daily basis to parents using the SMS system. In addition, the school Principal can track daily activities and view consolidated information right in their iOS and Android phones.

Responsibilities

- Mobile UI Design and Development.
- REST classes development. • Sending email alerts to parents when the kids are picked up and dropped from mobile app using Google

Proximities.

Environment: Windows 7

Technologies: Android (mobile version)

MobileReal is a Content Management System which works on a multi tenant model where the clients can prefer choosing a dedicated database or share a common one in which the tenants can store the documents and the presentations they need. These documents will get synced to iPad client. Apart from storage, mobile real has the functionality of creating presentations through the application, and also doing chat sessions. MobileReal has also plug-in supports for fetching the documents of clients from various sources like SharePoint.

Responsibilities:

- Involved in the application UI mockup process.
- Design and development of Screens as per mockup.
- Model classes to work with Mongo DB from Play.
- Implemented the SharePoint access helper which is a service application responsible for rendering the documents from the SharePoint using the credentials of the user who logs in.

Environment: Windows 7

Technologies: Play with Java, MongoDB, SharePoint, Amazon S3

ADT Field Service Module is a Prototype application used by the field service technicians of ADT. The work orders for the service technicians will get added to the server which will get synced to android and the client has the functionality of pointing the customer order work places in Maps. Apart from this ADT takes care of handling the inventory in truck and also it has the ability of generating the work order completion form by capturing the customer's signature from the application itself.

Responsibilities

- Mobile UI Design.
- Development of screens and core classes.
- Used Google maps to know the service location for the technician to work.
- Accommodated street view for the address of customers given.
- Used Proximity alerts to alert the technician when they enter the custom location.

Environment: Windows 7

Technologies: Android (mobile version)

eApprovals is a prototype application that works with the Oracle Approvals module which is used by the managers for accepting or rejecting the purchase order requisitions made by the service people

Responsibilities:

- Mobile UI Design and Development
- Sqlite design and development needed for application to work.

Environment: Windows 7

Technologies: Oracle ADF Mobile

eProcurement is a prototype application that works with the Oracle Approvals module and is used by the service people for making requisitions for the materials they need. These requisitions will get synced to the server and will get passed to the managers through Oracle Work Flows.

Responsibilities:

- Mobile UI Design and Development.
- Sqlite design and development needed for application to work.

Environment: Windows 7

Technologies: Oracle ADF Mobile Patient Registration System is an application that takes care of the registration process like patient arrival

details and forms with data's that are filled by the patient during the visit. The Operator chooses the forms that are needed to be filled by the patient during the visit and sends it through Web Services to the Android client which then filled will again get posted to server which the doctor can review. A Geo Fence is formed from Android client to server. If the device stops responding at any point of time then an alert will be launched on the server. This information will get posted back to the backend EMR systems which the practices own.

Responsibilities:• Mobile UI Design and Development.

- Rest API design and development for handling web service data.
- Used web sockets to send the updates to and from the server.
- Implemented the alert mechanism on the server and device using proximity alert if the device is taken outside of some number perimeters which the admin set.

Environment: Windows 7

Technologies: Android (mobile version), Play with Scala, SSE, WebSockets

IPO is an application that is used for tracking the project status which is used by the California State. This application will have a console for uploading a project report which is generated from a system that is owned by the state. The application parses those pdf's and captures the required metrics, which is a onetime configuration done by the project super user. Based on these metrics the system does some analytics and generates graphs and reports.

Responsibilities

- Application Design and Development.
- Writing the PDF document parsing code which uses iText to process the document uploaded by the user and populate necessary application tables with values.

Environment: Windows 7

Technologies: Play Scala, MongoDB

OTHER ACCOLADES

- Active member in stack overflow with 311 reputations 11 bronze and 1 silver badge.
- Organiser of the GCEB CSEA Association for the STATE LEVEL PAPER PRESENTATION named PHANTASAM'06 and CSAR'07 an Inter Department competition.
- Got First Prize in TECHNICAL QUIZ in CSAR'07.
- Member of National Service Scheme and participated in Campaigns.
- Presented paper on MOBILE COMPUTING in a STATE LEVEL PAPER PRESENTATION named SESHATECH'05 and got SECOND prize.
- Presented paper on WIRELESS APPLICATION PROTOCOL in a STATE LEVEL PAPER PRESENTATION held at PERIYAR POLYTECHNIC COLLEGE VALLAM and got THIRD prize.
- Participated in event called Marcutus (Marketing) held in Sacred Heart College, Thirupattur (Vellore District) and got 2nd Prize.
- Done a Course on Programming Practicing Techniques from 01.11.04 to 29.11.04 held by Directorate of Technical Education, Guindy.

EDUCATION

Bachelor of Engineering in Computer Science

Government College of Engineering Bargur - Krishnagiri, Tamil Nadu

Years: 2005 to 2008

Master of Engineering in Computer Science

University of Pennsylvania- Canada

Years: 2009 to 2013

Ph.D. in Computer Science

Massachusetts Institute of Technology - United States

Years: 2014 to 2018

SKILLS

Android (5 years), Play Scala (4 years), Oracle MAF (3 years), C# (2 years)

ADDITIONAL INFORMATION TECHNICAL SKILLS

Operating System Windows XP/2000,7,8 Linux

Technologies Android Apps Development, Java, Scala, Oracle ADF Mobile, Play Framework

RDBMS MySQL, SQLite

NOSQL MongoDB, SimpleDB, DynamoDB, Amazon S3

Web Servers Tomcat5.5, Play Server, Weblogic, Nginx, Apache

IDE Eclipse 3.6 (for Android Development)