

# Jayesh Kawli

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## CAREER OBJECTIVE

Seeking a full time position in software design and development field that will utilize my skills and abilities, and offer an organizational growth while being innovative and flexible

## EDUCATION

### **Indiana University**, Bloomington, IN

Master of Science in Computer Science

Cumulative GPA: 3.64/4.0

May 2013

### **Mumbai University**, Mumbai, India

Bachelor of Engineering in Computer Engineering

Cumulative GPA: 3.6/4.0

June 2010

## WORK EXPERIENCE

### Duet Health Corporation, Columbus, Ohio

August 2013 - Current

iOS Mobile Developer – 'Tools4U' iOS app for Nationwide Children's Hospital (Xcode, Objective-C, RestKit, Core Data)

- Worked on a Tools4U app for Nationwide Children's hospital to improve major backend and middleware functionality
- Included complex care, nutrition and diabetes journals to record patients' daily feeding information
- Added full offline support by Incorporating advanced object mapping and core data APIs
- Involved in significant decision making for iOS7 transition and support for newer devices
- Played important role in provisioning and releasing application in production and post-release maintenance

### Duet Health Corporation, Columbus, Ohio

August 2013 - Current

iOS Mobile Developer- 'MyChildren's' iOS app for Nationwide Children's Hospital (Xcode, Objective-C, Core Data)

- Worked on 'Nationwide Children's MyChildren's' mobile application' to enhance its architecture and functionality
- Significantly involved in refactoring old version for easy maintenance and creation of Objective-C libraries
- Utilized advanced networking libraries and core data for caching support and speed improvement
- Developed a reusable CocoaPods plugin for sliding image view to provide better user interface
- Gained valuable experience in newer iOS design patterns, block based APIs and core data framework

### Duet Health Corporation, Columbus, Ohio

August 2013 – October 2013

Web Developer-'Request an Appointment' application for Nationwide children's Hospital (ASP.Net, C#, SQL Server)

- Developed an application in ASP.NET for Nationwide Children's hospital to make online appointments
- Built input forms using with HTML and CSS on the frontend, C# as a middleware with SQL server back end
- Used stored procedures for data related tasks to preserve data security and ease of updating the data layer
- Added session support to store successive appointment requests and stored information in SQL server database
- Earned valuable web development experience by actively participating in all major application development phases

### Hank's College Football Recruiting, Bloomington, Indiana

July 2012-January 2013

Web Developer

(PHP, HTML, CSS, jquery, JavaScript, MySQL)

- Developed a football players recruiting website as a platform for upcoming high school and college players
- Allowed players to upload their profiles and other recruiters to search for players with desired skills.
- Integrated functionality such as private messages exchange, building personal profile and Ajax based dynamic search
- Gathered strong professional experience with web based software and database development

### Personal Project

March 2014 – Current

Web developer - Online Airline booking application

(PHP, MySQL, Angular JS, JavaScript, Bootstrap)

- Currently working on developing online airline booking application using Google angular JS framework
- Application supports basic ticket booking, online email confirmation, flight search based on various filters, parameters and weather updates for relevant locations
- Utilized Angular JS as a MVC based data binding component with front-end supported by Bootstrap framework
- Incorporated PHP/MySQL as a backend with PHP Data Objects (PDO) to support data-access abstraction
- Included ability to store and retrieve booking records on server and client side caching to reduce network load
- Currently working on user interface using material design with Google's polymer framework

## **Technical Skills**

**Languages:** C, C++, Objective-C, Swift, Java, PHP, MATLAB, R, COBOL, JCL, Python, Perl, Ruby, C#

**Platforms:** Microsoft Windows, OS/360, z/OS, Linux, Mac OS X 10.8

**Web Development:** HTML5, CSS3, JavaScript, Ajax, JQuery, ASP.NET, Canvas, KineticJS, Angular JS, Bootstrap

**Databases:** MySQL, Oracle9i, DB2, PL/SQL, SQLite, SQL Server, Core Data (Magical record), PHP data objects (PDO)

**Miscellaneous:** Apache Tomcat, GitHub, Jenkins, Eclipse, Latex, Xcode, Titanium, Visual Studio, Aptana Studio 3, MVC architecture, JSON, RESTful web APIs, Pony debugger, CocoaPods, RestKit, Crashlytics

## **Related Coursework**

Analysis of Algorithms, Distributed Systems, Advanced Database Management System, Computer Vision, System and Protocol Security and Information Assurance, Data Mining, Computer Networks, Database theory and Systems

## **Academic Projects**

### **Page Rank Algorithm (Java) – Sep 2012**

- Implemented sequential page rank algorithm to evaluate top 10 most important web pages from a set of 1000 URLs
- Developed parallel version of the page rank algorithm using MPJ to improve performance
- Analyzed behavior using SIGAR and ActiveMQ libraries on 2 million URLs situated on more than one distributed nodes
- Efforts of our team lead us to stand among top 3 project teams in a class

### **Social networking website (PHP, JavaScript, HTML5, CSS3) - May 2012**

- Developed a social networking website using Ajax, PHP and other web development tools
- Implemented chat and Private Messaging capability along with capability to friend and unfriend people
- Integrated website with many Facebook and Twitter based features
- Gained valuable insight regarding how simple programming languages can be utilized to provide excellent features

### **RANSAC (Random Sample Consensus) algorithm (C++) - Mar 2012**

- Implemented RANSAC algorithm for Image stitching and Panorama Creation
- Project included extracting image features using 'Tomasi and Harris' corner detection algorithm
- Tested on different real world with successful results on a set of more than two images

### **Geo Location detection from images (C++, MATLAB) - May 2012**

- Implemented and analyzed 'Geo location detection' algorithm to capture physical location from object shadows
- Experiment was based on a paper by Prof. Frode Erika Sandnes 'Determining the Geographical Location of Image Scenes based on Object Shadow Lengths'
- Successfully verified this algorithm at Bloomington, Indiana and achieved a significant statistical accuracy

### **K-Means data clustering algorithm (C++) - Sep 2012**

- Implemented and analyzed K-means data clustering algorithm on 'Wisconsin breast cancer data'
- Used 10-fold cross validation method to verify its correctness on unlabeled data. Performed unsupervised learning
- Observed more than 90% accuracy on final classification result

### **Naïve Bayes algorithm on fraudulent sales data (C++) - Nov 2012**

- Implemented and analyzed simple probabilistic Naïve Bayes data classification algorithm on fraudulent sales data
- Executed algorithm on more than 4 lakh input records with approximately 15000 training and 3.5 lakh test records
- Observed more than 90% final accuracy on final classification model by applying it on training data with known labels

### **Port Scanner (C) – Oct 2012**

- Developed a simple port scanner with Full IPv4 and partial IPv6 support with PCAP - packet capture library
- Studied the interplay of various implementations of firewalls, transport protocols and operating systems
- Verified standard services such as SSH, HTTP, SMTP, POP and IMAP if they are indeed running on respective ports
- Added multi-threading support for faster implementation on multiple ports

### **Web crawler and Document parser (Perl) - May 2012**

- Developed a web crawler to download and parse URL content using Perl regular expressions
- Stored URLs in MySQL database and iteratively added as they were found in successive links
- Used similar logic to extract and store email ids from a group of input webpages
- Gained experience with web crawling and how it can be utilized to automate large amount of data collection tasks