Jayesh Kawli

6730 W 140th Street Apt. 4002 Overland Park KS 66223
jkawli@indiana.edu (419) 285-6105

CAREER OBJECTIVE

Seeking a full time position in Software design and development field that will utilize my skills and abilities, and offer organizational and professional 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

Indiana University School of Informatics and Computing, Bloomington, IN *August2012-May2013*
Associate Instructor (Analysis of Algorithms)

- Assisted Professor Paul Purdom for graduate level course Analysis of Algorithms
- Held office hours and doubt solving sessions

Hank's College Football Recruiting *July2012-January2013*
Freelancer 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

Tata Consultancy Services, Pune, India
Assistant Systems Engineer (Banking and Financial Services) *August 2010 – June 2011*

- Worked on problems and solutions related to DB2 and Mainframe system for Real Time debit card transaction system
- Gained in depth practical experience in project management by verifying functionality in test and quality analysis phase
- Gained advanced technical knowledge of Mainframes and DB2 by troubleshooting the various business issues and performance glitches in implementation
- Involved in strong communication and negotiation skill through interaction with managers and client

Technical Skills

Languages: C, C++, Java, PHP, MATLAB, R, COBOL, Python, Perl, Ruby, JCL
Platforms: Microsoft Windows, OS/360, Linux
Web Development: HTML5, CSS3, JavaScript, DHTML, Ajax, Jquery
Databases: Oracle9i, DB2, PL/SQL, MySQL

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 the set of 1000 URLs.
- Developed parallel version of the page rank algorithm using MPJ as a part of performance improvement
- Analyzed behavior using SIGAR and ActiveMQ libraries with more than 1 million URLs on more than one distributed nodes
- Analyzed performance and behavior under different operating parameters. Stood among top 3 project teams in class

Social networking website (PHP, JavaScript, HTML 5, CSS3) May - 2012

- Developed a social networking website using Ajax, PHP and other web development tools
- Implemented chat and Private Messaging capability
- Integrated website with many Facebook and Twitter based features

RANSAC (Random Sample Consensus) algorithm (C++) Mar – 2012

- Implemented RANSAC algorithm for Image stitching and Panorama Creation
- Features were extracted using Tomasi and Harris corner detection algorithm as a part of preprocessing
- 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
- Experiment was based on a paper by Prof. Frode Erika Sandnes 'Determining the Geographical Location of Image Scenes based on Object Shadow Lengths'
- Tested algorithm at Bloomington, Indiana and achieved significant geographical 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

Depth Map Estimation from 2-D images (C++) Mar – 2012

- Created a simple disparity and depth map for pair of 2-Dimensional images using Hidden Markov Model
- Disparity map was created for a given set of images using pixel window and minimizing sum squared error
- Depth map was built using Markov Random fields using bidirectional message passing technique between two neighboring pixels

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 multiple of them as they were found on successive links
- Similar functionality was implemented to extract and store email ids from a group of input webpages

Analysis of Open Flow Network (Network security) Apr – 2012

- Wrote a survey paper to study, analyze and find any kind of vulnerability in the Open flow networks
- Analyzed the root causes of earlier attacks (DOS, Spoofing) - cause of a major network disruption using threat model

Organizer

- Organized a PHP based inter team virtual tournament 'Lock, Stock and trade'
- Worked as an organizer in the intercollegiate Group Discussion event 'Walk the Talk'