KUSHAL BHATT

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OBJECTIVE

Seeking a Career opportunity to leverage my experience in software development and expertise in programming/design and project management

EDUCATION

University of Southern California — **Master of Computer Science (MSCS)**
May 2009 — **GPA 3.73**

Nirma Institute of Technology — **Bachelor of Engineering (BE)**
Jun 2006 — **Information Technology GPA 3.7**

SKILLS

Programming	C, C++, Java, Python, Perl, J2me, J2ee, .Net
Web Technology	Ajax, JavaScript, XML, CSS, HTML, SOAP, REST, Servlets
Tools & Package	BSD Socket API, OpenSSL package, POSIX threads API, OpenMP, OpenCV
Operating Systems	Windows, Unix/Linux
Database	Oracle, MySQL, PL/SQL
IDE	Visual Studio, Eclipse, Net Beans, Dreamweaver

COURSES

Analysis of Algorithms	Security Systems	Computer Communication	Advance OS
Multimedia Systems	Parallel Programming	Web Technology	Wireless & Mobile Lab
Computer Vision	Operating Systems	Computer Networks	Database Systems

ACADEMIC PROJECTS

- **Peer to Peer File Sharing System (C++, Unix, Pthreads)** Implemented a peer-to-peer file sharing system based on Freenet providing privacy and security, a multithreaded architecture using pthreads and TCP sockets for communication with routing, message queues, logs, cache memory, keyword index search using bloom filter with SHA1, MD5
- **Operating System Implementation (C,C++)** Implemented significant parts of NACHOS, (an instructional Operating System, on a simulated MIPS-style workstation) including synchronization, multiprogramming, Virtual Memory and RPC
- **Research Paper: 'IPSec protocols: Security protocols for IP layer'** Authored a paper describing the IPSec architecture , IPSec Key Exchange(IKE) and types of attack on IPSec
- **Video Analysis and Classification (VC++)** Built an application that classifies videos, based on its content, to decide whether it is a sport, advertisement, movie or animation. Techniques like entropy measurement of frames, motion vector calculation, sound amplitude and variation analysis were employed.
- **MPEG & JPEG Scalable Encoder & Decoder(VC++)** Implemented scalable MPEG and JPEG encoder and decoder with base/enhanced and baseline/progressive modes respectively
- **Optimization using Parallel Programming (OpenMp, C)** Parallelize a given sequential algorithm for LU Decomposition using OpenMp directives and speedup the computation
- **Mobile Remote Desktop Control (J2ME,Python,Symbian)**Built an application that connects your mobile device to remote computer with Windows OS and provides the ability to perform different tasks you usually do on your desktop, wirelessly on Internet. It also allows streaming of video content from desktop to the phone.
- **Mobile Travel Blog(J2ME, Symbian, Apache, Servlets, Ajax)** Developed a GPS based mobile application that would allow one to take pictures through mobile phone and post the pictures, comments and the location of where the picture was taken on the servers, and display the pictures on the Google maps
- **Yahoo Movies Web Crawler and Movie Selector (Perl, Ajax, DOM)** Created a web crawler which extracts top movies information from movies.yahoo.com. Provide an interface to make a selection on the basis of genres, ratings. And show the selected title show timings on Google maps for the nearby zip code.

PROFESSIONAL EXPERIENCE

DirecTV Inc, Intern Software Engineer — May 2008 to Aug2008 (3 months)
DirecTV Program Guide (**Java, Axis2, Ant**)

- Developed, Tested and Documented SOAP and REST base web services for DirecTV program guide, which improved the customer service by allowing helpdesk personnel to provide mapping between channel and the packages.
- Performed JUnit Testing for existing modules of DirecTV program guide.

Tata Consultancy Services , Assistant System Engineer — Aug 2006 to July 2007 (12 months)
Core Banking Implementation(**C and Unix shell scripts**)
System Integration and Implementation of a Core Banking Solution package involving 1000 bank sites

- Implemented and Optimized End of Day scripts for production environment of the bank network.
- Worked as an Interaction Designer/Technical support/POC for the Taxation module which was a windows base application

Tata Consultancy Services, Intern Software Engineer — Jan 2006 to Apr 2006 (4 months)
Automation & Integration of Components in Enterprise Management System (**J2EE, Oracle**)
Developing a web based application to facilitate a paperless procurement and disbursement of assets in IT organization

- Developed Help Desk module based on Information Technology Infrastructure Library(ITIL)
- Designed and prototyped the entire Windows application based on User Research
- Awarded special recognition certificate for the effort