ASHWIN KASHYAP

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OBJECTIVE

A position as a software developer, which combines systems and applications architecture, network and systems engineering, programming and design that exploits my creative thinking and analytical zeal

EDUCATION

MASTER'S DEGREE IN COMPUTER SCIENCE **RUTGERS, THE STATE UNIVERSITY** **NEW JERSEY** **1/2001 - 12/2002**

» Current GPA is 3.5

» Courses: Networks, OS, Compilers, Databases, Software Engineering, AI, Algorithms and Computational Geometry

BACHELOR'S DEGREE IN ELECTRONICS **BMS COLLEGE OF ENGINEERING** **BANGALORE, INDIA** **9/1999**

» Distinction in final semester and first class overall

SKILLS

» In depth knowledge and experience with Systems, Internet technologies, software development

» Excellent inter-personal skills, public speaking, and technical writing

» Languages: C, Java, Perl, C++, TCL/TK, Prolog, Lisp, SML

» Technologies/ Platforms: MySQL, PostgreSQL, CVS, Windows, GDB, Linux/Unix, TinyOS (embedded systems)

EXPERIENCE

RESEARCH ASSISTANT **DATAMAN LAB, RUTGERS** **NEW JERSEY** **1/2001 – 12/2002**

Working as a research assistant with Prof. Badri Nath. Key research areas – Wireless sensor networks, Mobile computing and P2P. System administrator for the lab, responsible for maintaining ten machines – Linux/Windows/Solaris

Significant projects:

» Developed and implemented Trajectory Based Forwarding (TBF) – a routing protocol for dense sensor networks on Motes running TinyOS using C. Developed a Java GUI. Lead a team of two. http://www.cs.rutgers.edu/dataman/FourierNet/tbf.html

» Implemented Ad hoc Positioning System (APS) – localization protocol for sensors without GPS. Used Motes running TinyOS programmed in C. Developed a TCL/TK GUI. http://www.cs.rutgers.edu/dataman/FourierNet/aps.html

» Designed and implemented SLIP Simulator – for emulating IP over TCP/IP sockets. Multithreaded program, used Linux and C

» Implemented a multithreaded gateway between sensor networks and the Internet. Used Linux, C, and TinyOS

Class Projects:

» Compilers: Syntax directed translation of EBNF to DCG using Prolog, λ type deduction using SML and library program using C++

» Databases: Surveyed and implemented algorithms for colored range searching using Linux, PostgreSQL and C

» Computer Networks: Designed and implemented a peer-to-peer web server in C++, using the Chord API on Linux

» Communications Network: Simulated protocols like BGP, Multicasting using a Java framework

» OS Project: User Level Threads library on Solaris, Replicated File System and cache-affine, multiple run queue Linux scheduler

» Software Engineering Project: Real-time duplex voice communications using JMF

SOFTWARE ENGINEER **MINDTREE CONSULTING** **BANGALORE, INDIA** **1/2000 - 12/2000**

Responsible for designing and implementing medium-sized software modules in Java, C, C++ and Perl

Significant projects:

» Designed and implemented a MP3 crawler in Java to crawl the office network - multithreaded CIFS/SMB crawler. Used Perl, HTML for web page. http://www.cs.rutgers.edu/~ashwink/free_software/mp3Spider/index.html

» Developed reentrant libraries in C, C++ and Java, providing APIs to an IMAP-like protocol, for administering a message server

» NNTP-IMAP gateway – provided a storage method to the INND news server for news storage in an IMAP folder

» Designed USB drivers for UHCI controllers on VxWorks – as part of a team of five

» Designed and implemented asynchronous mail notification using PERL, LDAP and UDP