- **Summer Intern** ***Indian Telephone Industries Ltd., Bangalore, India*** May '90 - Jun'90
  Developed a simulation package for "Laser Application Lab" using Turbo C running on Novell LAN

PROJECTS

- **Simulation of Parallel Algorithm on a Sequential Machine**
  Developed a general purpose simulator to evaluate the performance of parallel communication message passing algorithm on sequential machine. Simulator was written in C and parallel algorithms were written using p4 on CM-5 machine

- **Implementation of GKS-3D for a PC in an Object-Oriented Environment**
  All the graphical functions are provided as a set of library functions upto level '1c'. All segmentation function, input and output functions, co-ordinate transformation, state lists and error handling are provided. Hidden Surface Elimination, Meta Files and Shading techniques are also included. The design is carried out in an Object Oriented Environment and implemented using Borland C++

- **Development of a Natural Language Interface to an Operating System**
  With the help of this interface any english statement (with some limit) typed onto the PC can be converted into equivalent DOS command. The project initially parses the string, checks for the syntax, filters out the meaningful words. These words are then mapped with standard library, which contains the actual command.

- **Development of Mail Server for DOS Environment**
  Developed a Mail Server as Terminate Stay Resident(TSR) at Indian Institute of Technology, Kanpur, India

ACADEMIC HONORS, SCHOLARSHIPS and CONFERENCES

- Awarded full **Research Assistantship** and **Tuition Scholarship** at Syracuse University
- Presented work on Virtual File System and java based Collaborator at **IEEE International Symposium on High Performance Distributed Computing** (HPDC4),Washington D.C. Aug '95

PROFESSIONAL AFFILIATIONS

- **Member**, IEEE Computer Society 1990 - present
- **Executive Member**, Computer Society of India 1992 - present
- **Chairperson, IEEE** Computer Society, REC Trichy Chapter 1993 - 1994
- **Secretary**, IEEE Computer Society, REC Trichy Chapter 1991 - 1993

REALTED COURSES

- **Masters of Science**

Operating Systems, Algorithms Analysis & Design, MultiMedia Systems, Software Engineering, Computational Geometry, Network Security, Parallel Computing, Formal Languages & Semantics, Distributed Computing. Took exemption for two core courses Computer Architecture and Discrete Mathematics

- **Bachelor of Scienc**e

Discrete Mathematics, Automata theory & Formal Languages, Compiler Design, Graph theory & Combinatorics, Data Structures & Algorithms, File Structures, Algorithm Analysis & Design, Computer Architecture,Microprocessors & Interfacing, Advanced 16-bit Microprocessors, Operating Systems, Computer Networks, Systems Programming, Database Systems, Structured System Analysis & Design, System Simulation & Modelling, Artificial Intelligence & Expert systems, Circuit Theory, Data Communication

REFERENCES

- Available upon request

VISHAL MEHRA

Mailing address
723 Euclid Avenue
Syracuse, New York
NY 13210

Phone: (w) (315) 443 2142
(h) (315) 426 8253
Email: vishal@npac.syr.edu
FAX: (315) 443 1973

OBJECTIVE

A career in software development with special interests in **networking** and additional interests in **database systems**, **computer graphic**s and **object-oriented design**

SKILLS

- **Computer Systems**: Sun SPARCstation, DEC, IBM PC, CM-5, Macintosh
- **Operating Systems**: Unix, SunOS, Solaris, MS-DOS, WindowsNT, VMS, MACH
- **Programming Languages**: Java, VRML, Visual C++, C++, C, Perl4, Perl5, Fortran, Pascal, Visual Basic, Prolog, Lisp, Oracle SQL, Cobol, dBase, Basic, sh, csh, 8085, 8086
- **Software Packages**: Lex, Yacc, Motif, SUIT, PHIGS, GKS, TCP/IP, Ingres, Postgres, X11, Quick Thread, p4

EDUCATION

- **M.S**. in Computer Science, **Syracuse University**, Syracuse NY — Expected Dec '95
  Master Thesis: Design and implementation of message passing communication library for distributed World Wide Web (WWW) sites using java
  Current GPA: 3.7

- **Bachelor of Science** in Computer Science, **REC Trichy,** India — June '94
  Final Year Project: Implementation of Graphics Kernel System(GKS)-3D for a PC in an Object-Oriented Environment
  GPA 3.7

EXPERIENCE

- **Research Assistant** ***Northeast Parallel Architectures Center (NPAC) Syracuse*** — Jul '95 - Aug '95
  Designed and implemented real-time collaborator using java communication library, while incorporating the concepts of Virtual Reality. The collaborator allows multiple dynamic virtual channels to be created between client and central server at run-time. It supports textual and graphical mode of operation.

- **Research Assistant** ***Northeast Parallel Architectures Center (NPAC) Syracuse*** — Mar '95 - Jul '95
  Designed and implemented message passing communication library using java and UNIX sockets. The library runs over TCP/IP layer and can perform distributed computing over World Wide Web (WWW). Library can be configured as stand-alone package or can be started as a daemon for faster communication. Library can be installed on WindowsNT and Solaris platform

- **Research Assistant** ***Northeast Parallel Architectures Center (NPAC) Syracuse*** — Feb '95 - Jun '95
  Designed and implemented a secure and reliable Virtual File System(VFS) using Common Gateway Interface (CGI) scripts and http servers. The file system allows clients to copy, create, delete, display, edit, execute, export, find, import, move, print and search files on-line using any www browser like Mosaic, Netscape or Hotjava. For better graphics interface the same design is been currently implemented in java

- **Research Assistant** ***Northeast Parallel Architectures Center (NPAC) Syracuse*** — Oct '94 - Feb '95
  Developed Multi-Media Transfer Protocol using Quick Thread and p4. Designed and implemented a scheduler using threads, which allow users to specify the priority of the threads

- **System Administrator** ***Computing Network Services, Syracuse University*** — Nov '94 - Present
  Developed various network utilities using TCP/IP, including NOCOL (Network Operation Center On-line) monitors in Perl4. Other duties includes resolving network errors, installing/upgrading new software for SunOs, Solaris, MS-DOS and WindowsNT platform

- **Research Assistant** ***ULTRA Corporation, Syracuse University*** — Aug '94 - Nov '94
  Developed various client-server modules in team project "JPL Neural Network" using winsock and Visual C++ running on Microsoft Windows 3.1.Server services client request by decoding the image map sent to it