Deepak Ramanathan

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OBJECTIVE

Design and Development of Web Integration of Databases

EDUCATION

Aug 95 — *Syracuse University, Syracuse*

Master of Science, Environmental Engineering

Aug 94 — *University of Pune, Pune, India*

Bachelor of Science, Chemical Engineering

COMPUTER SKILLS

Software	Arc/Info, Arc View, GRASS, DIS
Languages	C, Java, JDBC, JavaScript, Perl, VRML, , Avenue AML
Machines	Sun workstations, Windows NT, SGI, IBM RS 6000
Databases	Illustra, Oracle, Informix Universal Server, MS Access

RESEARCH & WORK EXPERIENCE

Jun 97 - till date — **Northeast Parallel Architecture Center at *Syracuse University***

Webmaster - Design and integration of NPAC resources with the World Wide Web.

Tasks included design and maintenance of Web Site. Site URL is http://www.npac.syr.edu

Jan 97 - Jun 97 — **Northeast Parallel Architecture Center at *Syracuse University*,**

Treasure Trove - Data Mining Web Database for 3-D visualization of statistical, geospatial and business information.

Designed and developed a comprehensive database that permits spatial queries and renders them in a **VRML** viewer. ***Cyber City*** displays spatial, statistical and business information for New York State in a virtual reality environment. The site holds more than a million variables and serves as a technology demonstration for interactive Web Databases. Implementation done on an Object-Relational Database **(ILLUSTRA)** using Web tools and standard Internet protocols. Awaiting patent for spatial implementation routines. http://sandman.npac.syr.edu:8888

Nov 96- till date

Northeast Parallel Architecture Center at ***Syracuse University*****,**

Illustra Database Administrator - Administration of the Illustra Database.

Tasks included creating a fully functional Geographical Information System(GIS) using public and commercially available goespatial data.The resulting Information System is now utilized by New York State as a showcase for the Living Schoolbook Project

Jan -97

Northeast Parallel Architecture Center at ***Syracuse University*****,**

Restructuring of TIGER/Line datasets to permit adaptability to an ORDBMS structure. This new approach will permit two-dimensional spatial queries. Three dimensional queries can be performed on embedded VRML objects in a virtual browser. (Advisor: Dr. Marek Podgorny)

OTHER RESEARCH INTERESTS: ORDBMS, Data Optimization, Remote Sensing Techniques, Virtual Reality Modeling Language,

May 96- Dec 96

Research Assistant ***Northeast Parallel Architecture Center at Syracuse University***

Worked extensively with Digital Elevation Models, High Resolution Satellite Images and Topographical Maps. Ported these datasets into an OpenGL 3D terrain viewer to enable virtual browsing. This project was funded by the U.S. Department of Defense

Jan 96 - May 96

Independent Study, ***Syracuse University***

Conducted a series of experiments to determine anomalous behavior of carbondioxide in raw water. Purpose of exercise was to determine optimum pH values for effective coagulation. (Advisor: Dr. R.D. Letterman)

Aug 94-Aug 95

Technical Advisor ***Rakiro Biotech, Bombay, India***

Provided expertise for manufacture of bio-diagnostic equipment. Products included Dip Slides used for detecting microbial contamination in raw water and industrial effluents.

Jan 94 - Aug 94 **Bachelor's Project,** ***University of Pune, India***

Design of a Plant with a production capability of 500 kgs/day of Phenylacetaldehyde. The compound is used as an additive in manufacture of perfumes.

GRADUATE COURSES

Object Oriented Databases, Data Mining, Database Management Systems, Object Oriented Design, Concepts in Spatial Modeling, Environmental Chemistry, Environmental Microbiology, Hazardous Waste Management, Solid Waste, Transport Processes, Advanced Concepts in Database Design (Illustra), Independent Study (Coagulation Techniques)

FELLOWSHIPS AND GRANTS

Jan 96 - May 96 **Graduate Scholarship for Academic excellence, Graduate School,** ***Syracuse University***

May 96 - Dec 97 **Research Assistant, Northeast Parallel Architecture Center, Syracuse University**

Aug 94 **University Rank, Environmental Engineering, University of Pune, India**

PROFESSIONAL AFFILIATIONS

American Water Works Association **(AWWA)**, Institute of Electrical and Electronics Engineer (**IEEE)**

PUBLICATIONS & PRESENTATIONS

1. *Geographical Information Systems(GIS) technologies for the New York Rural Housing Coalition Incorporated*

   Presentation at the 17th Annual Affordable Housing Conference, Syracuse, New York, October 1996

2. *Geographical Information Systems - A quantifiable approach to Environmental Modeling*

   Presentation at Syracuse University for members of the Engineering faculty, November 1996

3. *The World Wide Web and it's implications on Housing Needs*

   An online demonstration of the capabilities of ORDBMS in providing flexibility in housing needs.

REFERENCES

Available upon request