

Diganta Saha

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Virtual Reality Laboratory
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OBJECTIVE: A position in computer graphics and HCI development within a challenging team environment.

HIGHLIGHTS:

- Ten years in the University of Michigan Virtual Reality Lab
- Seventeen years of 2D and 3D computer graphics experience
- Several classes in programming, virtual reality, CAD and design

EDUCATION: University of Michigan, Material Science Engineering BSE, December '97.

EMPLOYMENT:

Systems Administrator and Webmaster

University of Michigan NAME department (includes our VR Lab)

Jan '98 - Present

Ann Arbor, MI

- Maintenance and trouble shooting department 200+ computers with software, hardware, networking and printing problems. System backups and improving security (working with local law enforcement and the FBI, regarding intrusions to our systems). Researching new products for purchasing and negotiating educational pricing from vendors
- Continue to support the Virtual Reality Lab, which has an Onyx Reality Engine2 (2 CPU) connected to a Fakespace BOOM 3C. Consulting the lab for hardware and software requirements need in many projects. Also advising and training new hires to our lab on our hardware and software that is either commercial or in house developed proprietary programs. Maintain the VR Lab web server, creating accounts, networking SGIs with NFS and general systems administration
- Supporting the Computational Marine Mechanics Lab (CMML), which consists of an Origin 3400 (12 CPU), an Origin 2000 (4 CPU) and several other Sun and HP workstations.
- Webmaster for the NA&ME department website. Aside from maintaining the information on the website, I also revamped and improved the usability of the department website using IBM's OVID system and other concepts to improve navigation by making it more intuitive using user feedback.

Programmer and modeler

University of Michigan Virtual Reality Laboratory

May '96-Dec '97

Ann Arbor, MI

- Creating models and programming in OpenInventor, VRML, VRML 2 + JAVA, Sense 8 WorldUp, MultiGen SmartScene & ModelGen for interactive and realistic training environments.
- Working with state of the art Silicon Graphics ONYX2 Infinite Reality2 supercomputers to O2 workstations with immersive devices such as the Pyramid CAVE, Fakespace BOOM 3C + pinch gloves, VR4 and Kaiser helmets.

Computer Consultant

University of Michigan Information Technology Division (ITD)

Oct '95-Dec '97

Ann Arbor, MI

- Consulting at the multimedia computing site (New Media Center)
- Trouble shooting software and hardware problems on the Macintosh and Windows NT
- Helping students encountering difficulties using advanced AVID MCXpress non-linear digital video equipment and computer graphics programs.

Webmaster / Marketing 745 Teaching Assistant
University of Michigan Business School

May '96-May '97
Ann Arbor, MI

- Webmaster for the Hermes Project Site. Responsibilities include design and maintaining the site. System administration, creating new accounts, PERL programming.
- Extra projects involving interactive pages in Java and Shockwave.
- Teaching assistant for Marketing 745, 'Marketing in on line environments'.

Solar Car Team Member
University of Michigan Solar Car Team

Sep '93-Jun '94
Ann Arbor, MI

- Involved with the electronic hardware and software design team. Head of PCB design. Responsibilities included inputting design to a CAD program and then designing the PCB board.

PROGRAMMING, COMPUTER GRAPHICS AND ART CLASSES:

Principles in virtual reality, ENG 477
Independent study in VRML for manufacturing, NAME 490
Independent study of quasicrystals in virtual reality, MSE 490
Introduction to C++, EECS 183
C++ Object Oriented Programming, EECS 280
Introduction to Java, EECS 284
Introduction to Fortran, ENG 103
Redesigning websites (School of Information)
Introduction to web usability (School of Information)
Organization of websites (School of Information)
Database design for the web with PHP + MySQL (School of Information)
Introduction to CAD with Unigraphics, ME 101
Industrial design, ART 391
Introduction to Photography, PHO 111 with 35mm SLR
Introduction to Studio, PHO 117 with 6x6cm Hasselblad
Studio Portraits, PHO 116 with 6x6cm Hasselblad
Digital photography, PHO 127 using Photoshop 6.0
Photography II, PHO 122 with 35mm SLR
Black & White Digital Imaging, PHO 129 with DSLR and quadtone printing RIP
Advanced Studio Techniques, PHO 220 with 6x6cm Hasselblad
Environmental Portraiture, PHO 216 using medium format
Color Photography, PHO 124 with DSLR and archival ink printers

TRAINING COURSES:

Windows 2000 administration and networking (training donated by Microsoft Research)
Windows NT administration
Unix administration
Unix / Linux Security
Computer forensics and security
Alias Studio computer modeling
3D Studio Max modeling and animation

COMPUTER SKILLS:

Operating environments:

Windows 2003 Server Vista/XP/2000/NT ME/98/95/3.0, Mac OS X/9/8/7/6, Linux (Red Hat, Ubuntu), Irix, Solaris, HP-UX, MS-DOS, OS/2, NeXTStep, BeOS, QNX, VAX, AIX, Domain/OS, Acorn Risc OS, BBC Micro, NFS, AFS, Emacs, X-Windows

Languages and toolkits:

C, C++, Fortran, Basic, Java, JavaScript, HTML, Perl, PHP, MySQL, VRML 2.0, OpenInventor

CAD and graphics:

Alias Studio, SoftImage 3D + Eddie, AutoCAD, Rhino 3D, Alias Sketch, 3D Studio Max, Macromedia Director, Adobe PhotoShop + Plugins, Adobe Illustrator, Infini-D, Bryce 3D, Poser, Deluxe Paint IIe, DeBabelizer, EDS Unigraphics, EAI VisModel, Sense 8 WorldUp, MultiGen SmartScene and ModelGen, CosmoWorlds, CosmoCode, CosmoCreate and proprietary SGI software.

Communication and office:

Microsoft Word / Excel / Powerpoint, Maple, Matlab, DeltaGraph, KaliedaGraph, multiple web browsers, SSH/SCP, Telnet, SFTP/FTP, X.500, Gopher.

AWARDS:

- Silcon Graphics Inc "UltraBuzz.wrl" competition winner of a **\$10,000** O2 workstation
- Member of Phi Theta Kappa honor society
- Winner of *World of Escher* computer graphics contest
- Best of Campus Award for September '96 homepages
- Second place winner of the Apple cyber-art competition in computer graphics

CONFERENCES:

ACM SIGGRAPH 2002, San Antonio
ACM SIGGRAPH 2000, New Orleans
ACM SIGGRAPH 1997, Los Angeles

ACTIVITIES:

- University of Michigan SIGGRAPH chapter since fall '00
- University of Michigan Sailing Club since summer '93
- University of Michigan Archery Club since summer '94
- University of Michigan Ballroom dance club since fall '00
- Member of Entity, Ann Arbor Computer Artist Coalition

Reference available upon request: Director of the VR Lab Prof. Klaus Peter Beier, beier@umich.edu.