RAHUL SHARMA

Pursuing, M.E
[Majors- Computer Science and Engineering]
Indian Institute of Science (IISc), Bangalore
Mobile no: +919448172998, +919620812230
E-mail: rahulsrma26@gmail.com, rahulsharma@csa.iisc.ernet.in
Website: http://clweb.csa.iisc.ernet.in/rahulsharma/

OBJECTIVE:

To establish myself as an innovative researcher that brings the theory into practice.

TECHNICAL EXPOSURE:

Programming Languages	C, C++, Visual Basic, C#, Java(J2SE, J2ME), PHP, Assembly (x386), MATLAB, CUDA C, GLSL
Script Languages	Java Script, Action Script(2.0)
Database	MS SQL Server 2005, IBM DB2 Express-C, MySQL
Front End	Visual Basic 6.0, Netbeans, Visual Studio Dot Net
Operating Systems	DOS, Windows, Ubuntu
Softwares	Corel Draw, Photo-Paint, Adobe Flash, Dreamweaver, 3D Studio Max

EDUCATION:

Degree/ Exam	Year	University/Board	Institute	GPA/Percentage
M.E.	2011-13	I.I.Sc	Indian Institute of Science	6.6 out of 8.0
B.Tech	2007-11	U.K. Technical University	College Of Engineering Roorkee	78.26%
10+2	2005	CBSE	RLB Memorial School, Lucknow	70.40%
10	2003	CBSE	RLB Memorial School, Lucknow	81.80%

INTERNSHIP:

IBM Research Labs (Delhi, India)
Mobile Data Services Using Open Protocols and Internet
(Jun 2, 2010 – Sep 13, 2010)

The aim of our work is to help the companies, institutions etc by making communication easy and virtually without any cost. The project involves three applications: client side mobile application (J2ME implementation), client side laptop/PC application (J2SE implementation) and server side application (J2SE implementation).

PROJECTS:

M.E. Project: Interactive Virtual Endoscopy of Upper GI Tract and Stomach under guidance of Dr. Vijay Natarajan

We are developing an interactive virtual endoscopy system for training of the doctors to hone their skills. Project includes extraction of models from visible human data, custom shader for the visualization of data, automated walkthrough and force feedback.

Development of lateral method for binarization of degraded document images under the guidance of Dr. Ankush Mittal and Dr. Debashis Ghosh

We have developed a new algorithm for binarization of degraded documents. We have addressed four types of degradations that are commonly found in degraded documents. Proposed algorithm has superior performance against eight standard and well-known algorithms in which five is specialized for degraded documents.

Illumination & Shadow support to VGL volume renderer under guidance of Dr. Vijay Natarajan

We added volumetric lightening and shadow to the existing VGL volumetric renderer. It now supports Blinn-Phong, Kniss and a combined lightening model.

3D Animated Turing Machine Simulator with quintuple interpreter and debugger

The project had been made to understand the concept of Turing machine better. The project was built on Adobe Flash using Action Script 2.0. The animation and graphics had been created on 3D Studio Max. It has a build-in interpreter and debugging tool. It has a real-time background interpreter that checks for error as user types the line of code.

B.TECH. Project: Free Mobile Services using Internet under the guidance of Mr. Vishal Batra

Extension of the internship project "Mobile Data Services using Open Protocols and Internet". I added new features in the project as confidentiality, OBEX transfer, delivery report and background sending.

PUBLICATIONS:

Journal Papers:

Published

- Sharma R., Gupta N., Narang V. and Mittal A. (2011) 'Parallel implementation of DNA sequences matching algorithms using PWM on GPU architecture', Int. J. Bioinformatics Research and Applications, Vol. 7, No. 2, pp.202–215
- Nitin Gupta and Rahul Sharma. "Mobile Data Services using Open Protocols and Internet". International Journal of Computer Applications 29(12):21-24, September 2011 (Impact Factor 2010: 0.835)
- Brij Mohan Singh, Rahul Sharma, Ankush Mittal and Debashish Ghosh, "Parallel Implementation of Otsu′s Binarization Approach on GPU", International Journal of Computer Applications 32(2):16-21, October 2011 (Impact Factor 2010: 0.835)
- Brij Mohan Singh, Rahul Sharma, Ankush Mittal and Debashish Ghosh, "Parallel Implementation of Niblack′s Binarization Approach on CUDA", International Journal of Computer Applications 32(2):22-27, October 2011 (Impact Factor 2010: 0.835)
- Brij Mohan Singh, Rahul Sharma, Ankush Mittal and Debashish Ghosh, "Parallel Implementation of Souvola′s Binarization Approach on GPU", International Journal of Computer Applications 32(2):28-33, October 2011 (Impact Factor 2010: 0.835)

Under Review

- R. Sharma, B.M. Singh, D. Ghosh, and A. Mittal, "Adaptive binarization of degraded and non-uniformly illuminated documents," under review in IEEE Transaction on Image Processing (Impact Factor 2012: 3.042)

Conference Papers:

- B.M. Singh, R. Sharma, A. Mittal and D. Ghosh, "Evaluation of thresholding algorithms on degraded Devnagari documents" Published in the proceeding of 5th Uttarakhand State Science and Technology Congress, 10-12 Nov, 2010, PP.75-76

ACHIEVEMENTS AND PROFESSIONAL CERTIFICATION:

- GATE 2011: All India Rank 35, percentile 99.97,
- Among top 30 candidates who cleared JEST 2011 (conducted by IMSc, The Institute of Mathematical Sciences)
- Qualified preliminary round of 6th National Astronomy Olympiad-2004, held at Regional Science Center, Lucknow
- IBM Certified Database Associate (000-730, year 2010), clear with 92.19%

HOBBIES:

- Computer designing
- Calligraphy
- Sketching and Drawing
- Computer gaming and game making

PERSONNEL DETAILS:

Date of Birth	26th April 1988
Father's name	Sri. R. K. Sharma
Sex	Male
Marital Status	Single
Permanent Address	House No. 383, Sector-5, Vikas Nagar, Lucknow (U.P.) – 226022
Nationality	Indian

ABOUT ME:

I am a self motivated, hard working and honest person. An able programmer and a person having creative thinking. I am also interested in designing and drawing. I usually solve mathematical puzzles and read computer books at stagnation. I love calligraphy and sketching besides coding.