

Shubhajit Saha

Research Interest

Social Computing, Human Computer Interaction, Interaction Design, Fluid Interfaces, Technologies in Learning, Game Design, Artificial Intelligence.

Education

Bachelor of Engineering in Civil Engineering, Bengal Engineering and Science University, Shibpur.
2007 to 2011, Percentage: 68.4%, First Class (semester wise 71.9, 75.8, 66.9, 66.9, 69.7, 62.4, 67.7, 66.6)
Senior Secondary, Indian School Certificate.
2005 to 2007, Marias' Day School, Howrah. Percentage: 86.6%
Secondary Education, Indian Council of Secondary Examination.
1995 to 2005, St. Aloysious' Orphanage and Day School, Howrah. Percentage: 78.4%

Work Experience

Research Associate at IDC, IIT Bombay
Jan 2013, Industrial Design Center, Indian Institute of Technology.
Gameplay Programmer at Ubisoft
Oct 2011 to Dec 2012, Ubisoft, Pune.

Technical Clubs and Association

Co-Founder/Owner of BitSits Games.
Volunteer for CRY-BESU Chapter (Child Rights and You).

Awards and Achievements

Atooms to Moolecules included in NASSCOM GDC USB Drive.
Won *Intel Level Up 2011* in Educational Category.
Published Atooms to Moolecules on *Steam* as a part of Intel Level Up Demo.
Game Demo shown at *Electronic Entertainment Expo (E3)* edition of Video Games Live.
Won Windows Phone 7 "I Unlock Joy" program in Student Category by Microsoft.
Won "Build Your Dreams with Windows Phone 7" Applications contest – India 2011 by Microsoft.
Certified and Published six games in *Windows Phone Marketplace*.
First in GameX (Game Design Competition), *Tryst 2011* (IIT Delhi Techfest).
Second in Demo Project *Tryst 2011* (IIT Delhi Techfest).
Third in GameX (Game Design Competition), *Tryst 2011* (IIT Delhi Techfest).
First in Envision, Ingenuity (Open Software Design), *Troika 2011* Delhi Technological University (IEEE Student Branch).
Second in AppsDreamer *Synapse 2011* (DAIICT, Gandhinagar).
First in OpenSoft *Kshitij 2011* (IIT KharagpurTechfest).
Second best prize in *BITM Eastern India Science and Engineering Fair*, with Undergraduate Scholarship for a year.
Invited to compete in *INFOCOM (Kolkata)*, in Feb 2011.
First in Software Designing *Bits2Bytes 2010* (BIT, Techno India).
Rank of 192 (38th in India) during summer 2009, SPOJ. SPOJ has 250,000+ participants from 125 countries.
5th in *Flawless Edge 2009* (Techno India), where around 200 teams participated.
Maximum *TopCoder* Rating of 1076 (Green member) during summer 2009.
Ranked 1248 (top 0.5%) in *WBJEE*, state engineering admission exam, 2007.
State Rank of 732 (500,000+ applicants) in *AIEEE*, national engineering admission exam, 2007.

Publications

S. Saha, G. Paul. **On effective Sharing of User Generated Content**. *In the Proceedings of ACM APCHI 2013*. Bengaluru, India. 2013.

M. Agarwal, S. Saha. **Interactive Entertainment Software for Learning chemistry**, *In the Proceedings of Grace Hopper Celebration of Women in Computing India*. Bangalore, India. 2012.

M. Agarwal, S. Saha. **Environment Educational Game Design**, *In the Proceedings of Grace Hopper Celebration of Women in Computing India*. Bangalore, India. 2011.

S. Saha, M. Agarwal. **Learning Chemistry through Puzzle Based Game: Atoms to Molecule**, *In the Proceedings of 9th IEEE International Conference on Emerging eLearning Technologies and Applications 2011*. Stara Lesna, Slovakia. 2011.

S. Saha, M. Agarwal. **Atoms to Molecule (Game Design Abstract)**, *In the Proceedings of SPAC TRIGGER Vol. 24 Delhi Technological University (IEEE Student Branch)*. Delhi, India. 2011.

Conferences & Invited Workshops

July 2013, *Monsoon HCI Course by Anirudha Joshi*, IIT Bombay.

Nov 2012, *NAASCOM Game Developer Conference*. Pune, India.

Jun 2012, *Electronic Entertainment Expo (E3)*, Los Angeles Convention Center, USA.

Dec 2011, *Grace Hopper Celebration of Women in Computing India*. Bangalore, India.

Feb 2011, *Students' Professional Awareness Conference (SPAC)*. Delhi Technological University, Delhi, India.

Jan 2011, *Speaker of Game Design Lecture in BIT, Techno India*. Kolkata, India.

Skill Set

Operating Systems: Windows, GNU/Linux.

Programming Languages: C#, C, C++, Java.

API/Frameworks: OpenGL, DirectX 9, XNA (3.0, 4.0), WP7 Dev Tool, .NET (2.0, 3.5), Windows API.

Web Technologies: HTML, XML, JavaScript, PHP, CSS, Silverlight, Zend Framework.

Graphics Editors: Adobe Illustrator, Adobe Photoshop.

Audio/Video Editors: NCH WavePad, Adobe Premiere, Microsoft Expression Encoder 3.

Projects

LogPIXEL (Ongoing)

Create a unified platform which will bring together users fragmented data and information. The idea is to integrate all popular web services and create a unique experience.

Squares Vs Triangles 2: War Again (Ongoing, Role: Mentor)

The game is based on 4 day prototype game *Squares Vs Triangles*. The gameplay is changed to simple platformer with additional features like multiplayer (4v4), more classes of weapons and new objectives.

Cops and Robbers with Multiplicity (Advisor: Goutam Paul)

Analyze the 'cops and robber' game with the modification to the game rule that even cops are venerable, multiple robbers are present and multiple cops can sit in a single grid. The objective was to find the multiplicity of the cops required to catch all the robbers, where multiplicity is the number of cops that can be placed in a single grid.

Application of GIS in Rural Road and Habitation Mapping (Team size - 2)

Advisor: Prof. Sujata Biswas (Undergraduate Thesis, Bengal Engineering and Science University, Shibpur)

Develop habitation database and rural road network database in block level. Identify the unconnected habitation in the block and the growth center based on socio-economic parameters.

Squares Vs Triangles

A RTS game inspired from Jon Klassen's art *squarestrianglesatsea.jpg* and *shapewarsweb2.jpg*. The game was developed for Experimental Gameplay Projects - Night and Day for November.

Windows Phone Market Place Product ID: 93c6c586-2773-e011-81d2-78e7d1fa76f8

Atooms To Moolecules (Team size - 2)

A chemistry based puzzle game, drag and drop to connect the atomic creature and make molecules. The game was made as an Independent Game Festival 2011 entry. It won Intel Level Up 2011, Educational Category.
Windows Phone Market Place Product ID: 40dd71d3-fb57-4afb-9d44-95b24d57024d
Steam Marketplace ID: <http://store.steampowered.com/app/213390/>

Push Puzzle

A puzzle game where the player taps to slide the puzzle blocks in the correct order to their corresponding place to solve the puzzle. This game was developed for Experimental Gameplay - The April theme Wash, Rinse, and REPEAT.
Windows Phone Market Place Product ID: df14a58e-935c-e011-854c-00237de2db9e

BitSits Framework

Microsoft® XNA and .NET based game engine developed for rapid prototyping. It runs on multiple platforms (Windows and Windows Phone 7). It also supports Erin Catto's Box2D physics engine under the MIT License.

Gombli (Team size - 2)

A single player platformer game, the game character Gombli is an 11 year old girl. Gombli fights pollutants (Carbon dioxide and Chlorofluorocarbon) and solves puzzles on her quest. The game was made as an entry in Imagine Cup Game Design Competition 2010 Round 1.

Other Prototypes

Rubik's Cube Solver

The solver uses *Korf's algorithm* also called IDA*. The implementation is similar to *JappScherphuis's Cubie*. The cube can be solved with a maximum depth of 25.

Sign Line (Team size - 2)

In the game player solves the puzzle by joining same kind of symbols. The player can join the symbols either linearly or by making loops. The game was made as an entry in Imagine Cup Game Design Competition 2011 Round 1.
Windows Phone Market Place Product ID: b7b7f1fd-ca18-4030-8281-2f6a0eed63d0

Treasure Island

A game made in 48 hr made for Ludum Dare #19 competition. In the game you collect as many treasure chest as you can and find the cross mark to go to the next level. To move to the next island use the boat. The game was also submitted in Experimental Gameplay Projects - December DRAWING.
Windows Phone Market Place Product ID: 8d73dd02-c8b7-4f52-8725-9394006a8333

Moolecule

A game about connecting the atomic creatures to make bigger and bigger molecules. The game was developed for Experimental Gameplay Projects - Two Months of CASUAL ADDICTION for June and July.

Apple e Apple

In the game you have to grow an apple tree and lots of apples before you collect all the arrows. The game was developed for Experimental Gameplay Projects - Two Months of CASUAL ADDICTION for June and July.

Speedy Crash

Physics based game where you are trapped in an endless asteroid belt, where you crash into them using your velocity. This game was developed for Experimental Gameplay Projects - The May theme May means HIGH VELOCITY.

References

Dr. Goutam Paul

Asst. Professor, Computer Science & Engineering
Jadavpur University, Kolkata – 700 032.
E-mail: goutam.paul@ieee.org

Dr. Sujata Biswas

Professor, Civil Engineering
Bengal Engineering and Science University.
E-mail: sujata@civil.becs.ac.in

Dr. Kalyan Kumar Bhar

Professor & Head, Civil Engineering
Bengal Engineering and Science University.
E-mail: kalyan@civil.becs.ac.in

Gaurav Singh

Senior PS3 Programmer
Ubisoft, Pune.
E-mail: gaurav.singh@ubisoft.com