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## ABHISHEK RAY

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### EDUCATION

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*NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE*

Jul 2008 – Present

- Majoring in Computer Engineering, BEng
- Current GPA - 4.29/5

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### ACADEMIC EXCHANGE

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*UNIVERSITY OF MARYLAND, COLLEGE PARK*

Aug 2010 – Dec 2010

- One of the best Universities for Computer Science.
- Learned to appreciate new cultures and had a lasting effect on world views.
- Adapted to a completely different style of teaching.
- Improved communication skills and increased self-confidence.

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### WORK EXPERIENCE

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*SINGAPORE-MIT GAMBIT GAME LAB, CAMBRIDGE, MA*

Jun 2011 – Aug 2011

- Worked as a Programmer in a team of 10 people, to design and create a point and click adventure game and a set of tools to ease the process of game development. The tools helped the Game Designer create more complex puzzles.
- Developed the game in Actionscript and the tools in C# and Silverlight. Tools used XML to pass data to the game.
- Tools to be released to other developers in the future to gain insight into how to create adventure games.
- The game can be played at – <http://gambit.mit.edu/loadgame/stranded.php>

*INSTITUTE OF HIGH PERFORMANCE COMPUTING, SINGAPORE*

Jan 2011 – May 2011

- Developed a library for a Poisson solver by mapping algorithms commonly employed in high performance computing onto a multi-GPU server. Accelerated the application by implementing the sequential algorithms in parallel.
- Implemented the library in CUDA C. Achieved a speedup of around 20 times as compared to the FORTRAN library.

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### PROJECTS

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*Final Year Project – In collaboration with IHPC Singapore*

Aug 2011 – Present

- Developed a mapping framework that maps streaming applications onto AMD GPUs using OpenCL.
- Evaluated the performance of the framework by running several benchmarks, and developed a method to compare performance of the framework on different GPU architectures fairly.

*NTU Facebook Game – Getting Around NTU*

Aug 2011 – Dec 2011

- Designed and developed an educational Facebook game to help prospective students learn more about the university.

- Worked as the sole programmer in a team of 3 people and led the team to deliver the game in a tight deadline.
- Developed the game in Actionscript and used the Facebook-Actionscript API to interface between the game and Facebook.
- The game can be played at - <https://apps.facebook.com/gettingaroundntu/>

#### *BitTorrent PROJECT*

Sep 2010 – Dec 2010

- Designed a fully functional BitTorrent client for Computer Networks Course. BitTorrent client is able to get the list of all the peers from the tracker and then connect to those peers, send and receive a handshake and then download all the pieces from the peers and send have messages to all the peers.
- Developed the client using the Sockets API on Linux and C.

#### *DESIGN AND DEVELOPMENT PROJECT*

Jan 2010 – May 2010

- Led a team of 6 students. Required to distribute work equally and efficiently amongst other teammates and ensure there was proper communication between everybody and work was on being done on schedule.
- Designed a microcontroller-based mouse to explore a maze, find the shortest and fastest path. Required to update the status of the exploration to a software program on the PC. The monitoring program updated the mouse movement in real-time.

### **CO-CURRICULAR ACTIVITIES**

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#### *VICE PRESIDENT, NTU COMPUTER SOCIETY*

Aug 2010 – Apr 2011

- Spearheaded the committee to successfully organize NTU Computer Society's flagship event Techathlon that comprised of various events such as a Tech Quiz, a Coding and Speed Cubing competition spread over 2 days in which more than 150 students took part.
- Responsible for liaising with the Student Affairs Office in NTU and the proper functioning of the entire committee.

#### *CHAIRPERSON, HALL CHARITY PROJECT*

Aug 2009 – Apr 2010

- Proposed and led a 15-member team in organizing a charity programme, comprising of various fund raising events such as cookie and midnight supper sales, raising \$2200 to fund visits to children's home.
- Recruited up to 50 fellow student volunteers to visit children's homes, teach and play with the children and spend some meaningful time with them.

### **SKILLS**

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- *Computer* – C, C++, Java, C#, Actionscript, CUDA, PHP
- *Languages* – Fluent in written and spoken English and Hindi. Intermediate level of spoken Bengali.

### **AWARDS & ACHIEVEMENTS**

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- *SIA-NOL Scholar*- Awarded to outstanding students of Indian nationality for full-time undergraduate studies at NTU.
- *Cleared all competitive exams in India* – IIT, BITS, AIEEE

### **HOBBIES**

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- Watching and playing football
- Travelling