

RATUL SAHA

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EDUCATION

National University of Singapore, Singapore 2013--present

- PhD student in Department of Computer Science, School of Computing
- Thesis: *Towards Quantitative Model Checking of Distributed Probabilistic Systems*
- Advisor: David S. Rosenblum, and previously, P. S. Thiagarajan (retired)

Chennai Mathematical Institute, India 2009--2012

- B.Sc in Mathematics and Computer Science
- GPA: 7.45/10 and CGPA for CS: 9.25/10

PUBLICATIONS

- Ratul Saha, Madhavan Mukund, and R. P. Jagadeesh Chandra Bose. *Time-bounded Statistical Analysis of Resource-constrained Business Processes with Real-time Distributed Probabilistic Systems*. In Proc. of SETTA 2016.
- Javier Esparza, Philipp Hoffmann, Ratul Saha. *Polynomial Analysis Algorithms for Free Choice Probabilistic Workflow Nets*. In Proc. of QEST 2016.
- Loi Luu, Ratul Saha, I. Parameshwaran, Prateek Saxena, and A. Hobor. *On Power Splitting Games in Distributed Computation: The Case of Bitcoin Pooled Mining*. In Proc. of CSF 2015.
- Ratul Saha, Javier Esparza, Sumit K. Jha, Madhavan Mukund, and P. S. Thiagarajan. *Distributed Markov Chains*. In Proc. of VMCAI 2015.

RESEARCH COLLABORATIONS

- Collaborated with 10 professors, 3 PhD students, and 2 industry researchers across 8 cities
- Was invited as a guest researcher and speaker at
 - CFDVS lab, *Indian Institute of Technology (IIT) Bombay, India* for Mar--April 2016. Host: S Akshay.
 - ACMU, *Indian Statistical Institute (ISI) Kolkata, India* for Jan--Feb 2016. Host: Ansuman Banerjee.
 - CS Dept., *Chennai Mathematical Institute (CMI), India* for Aug--Nov 2015. Host: Madhavan Mukund.
 - FSR&TCS, *Technische Universität München (TUM), Germany* for May--July 2015. Host: Javier Esparza.
- Was invited to *Trends and Challenges in Quantitative Verification*, A Mysore Park Workshop (2016)

AWARDS

- Among top 35 in the country to clear *Indian National Mathematical Olympiad 2007*
- Was selected twice (2007 and 2008) to attend the training for selection of the Indian team for the International Mathematical Olympiad (IMO)
- Recipient of *Undergraduate Scholarship* as part of the Nurture Program by National Board for Higher Mathematics, India

WORK EXPERIENCE

National University of Singapore, Singapore Jan--July 2013

- Research assistant in School of Computing
- Worked on a model checking tool (using Python) for models with uncertainty

LimberLink Technologies Pvt. Ltd., India Jun--July 2012

- Software development internship under supervision of V. Vinay
- Designed a product to help educators provide affordable online education

Chennai Mathematical Institute, India 2010, 2012

- Placement co-ordinator for Fall '12
- Teaching Assistant for Advanced Programming (Fall '10) and Data Mining (Fall '12)

LEADERSHIP EXPERIENCE

Branding Consultancy 2016--present

- Developing online brands for a total of 5 small businesses, entrepreneurs, and celebrities
- Delegating designers and content managers to provide hassle-free support to clients

Overleaf, Writelatex limited 2014--present

- Acting as an external advisor, ``Advisor of the month" for Oct 2015
- Organized seminars on introduction to document preparation for beginners

Movie Database and Promotion Agency 2010--2013

- Created a partnership firm and profiled more than 2000 movies and 4000 artists
- Led 8 part-time members including content managers, journalists, and national award-winning authors
- Was offered one acqui-hire and one acquisition

TECHNICAL EXPERIENCE

- Programming languages: Python, Haskell, C and Java
- Tools and Scripts: \LaTeX , HTML5/CSS3/JS, MS Excel
- Designed a popular open-source presentation template called *Presento* that is clean, minimal and extensible

OTHER INFORMATION

- Nationality: Indian, Age: 24 years
- Languages: English (full professional proficiency), Bengali and Hindi (native or bilingual proficiency)
- TOEFL iBT (2012): 103/120
- GRE (2012): Verbal -- 147, Quantitative -- 164, Analytical writing -- 3.5
- Hobbies: swimming, chess, User Experience (UX) design