Ritam RAHA



PERSONAL DATA

PLACE AND DATE OF BIRTH: Kolkata, West Bengal, India | 04 July 1996

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CURRENT EDUCATION: Ph.D Candidate(cotutelle) in Computer Science

University of Antwerp & LaBRI, University of Bordeaux

EDUCATION

Current 2019-Present	University of Antwerp & University of Bordeaux Ph.D in Computer Science Advisor: Guillermo A. Pérez & Nathanaël Fijalkow Research Interest: Verification of AI, Games, Automata Theory
2017-2019	Chennai Mathematical Institute M.Sc. in Computer Science Advisor: Nicolas Markey & Loïc Hélouët Thesis Title: Reachability Games With Strong AND Relaxed Energy Constraints
2014-2017	Chennai Mathematical Institute B.Sc. in Mathematics & Computer Science
2012-2014	Hindu School Passed 12^{th} standard Board Exam(West Bengal Board of Higher Secondary Education)
2002-2012	Baranagore Ramakrishna Mission Ashrama High School Passed 10^{th} standard Board Exam(West Bengal Board of Secondary Education)

PUBLICATION

• Reachability Games with Relaxed Energy Constraints. GandALF 2019: 17-33 Loïc Hélouët, Nicolas Markey, Ritam Raha

Courseworks

Automata Theory, Design of Algorithms, Haskel, Python, Java, Data **Basic CS Courses**

Mining-Machine learning, Model Checking & System Verification, Complexity Theory, Applied Machine Learning, Logic - Automata & Games,

Mathematical Logic, Games on Graphs & Optimization Techniques

Advanced CS Courses Advanced Machine Learning, Concurrent Programming, Linear Pro-

gramming and Convex Optimization, Games on Graphs 2, Program Analysis, Infinite State Systems, Topics in Security & Advanced Machine Learning, Logic II, Advanced Algorithms & Some notions of B & S automata and Cost Functions(not a formal course), Algebraic Automata

Theory, Timed & Quantitative Automata Theory

Algebra I, II & III, Calculus I, II & III, Topology, Differential Equations, **Mathematics Courses**

Real & Complex Analysis

INTERNSHIP EXPERIENCE

WINTER 2018 Master's Intern at INRIA, Rennes

Worked under Prof. Nicolas Markey and Prof. Loic Helouet on "Reach-

ability Games with Relaxed Energy Constraints"

SUMMER 2018 Summer Intern at LaBRI, Bordeaux

Worked under Prof. Nathanael Fijalkow, Vincent Penelle, Filip Ma-

zowiecki and Nathan Lhote on "Weighted Automata with Ambiguity

and Extensions"

SUMMER 2017 Summer Intern at LSV, ENS Cachan

Worked under Prof. Philippe Schnoebelen on "Piecewise Testable Index

of Words and Its Algorithmic Evaluation"

Summer Intern at Institute of Mathematical Sciences, Chennai **SUMMER 2016**

> Worked under Prof. Teodor Knapik, a visiting faculty at IMSc., from University of Caledonia, on "Automatic Structures and Presentations" and

also an official intern at TCS summer programme by IMSc.

Summer Intern at Indian Statistical Institute, Kolkata **SUMMER 2015**

Worked under Prof. Sandip Das and Prof. Sagnik Sen on "Some approach

to Borodin-Kostochka Conjecture"

RESEARCH TALKS

- · Weighted Automata with ambiguity and extensions, The Seminar of the Formal Methods and Verification group, Université Libre de Bruxelles, Belgium
- · Weighted Automata with ambiguity and extensions, Séminaire de l'équipe Méthodes Formelles, LaBRI, University of Bordeaux, France
- Piecewise Testable Index of Words and Its Algorithmic Evaluation, Student Symposium on Verification, Automata and Games, Chennai Mathematical Institute, India
- · Automatic Structure and First order Decidability, Institute of Mathematical Sciences

TEACHING ASSISTANCE

- Work as a Teaching-Assistant on "Concurrency Theory" course under Prof. Madhavan Mukund
- Worked as a Teaching-Assistant on "Mathematical Logic" course under Prof. M. Praveen
- Worked as a part-time teacher for VISTAMIND, Chennai

SCHOLARSHIPS AND CERTIFICATES

OCTOBER 2019	Recipient of Doctoral Scholarship Programme of University of Antwerp
DECEMBER 2018	Selected winner in Poster Competition organised by Tata Consultancy Services
	for presenting "Synthesis via Multi-Criteria Quantitative Games".
AUG 2017	Recipient of Chennai Mathematical Institute Master's Scholarship
FEB 2016	Recipient of INSPIRE scholarship programme

PROGRAMMING SKILLS

Basic Knowledge: Haskell, Java, HTML & CSS, C

Intermediate Knowledge: Python, LATEX

EXTRA-CURRICULAR

- Regularly played football at school and college campus
- · Loves recitation and participated at many cultural programmes in school and college

REFERENCES

• Guillermo Alberto Perez Head of the Formal Techniques in Software Engineering (FOTS) lab, a part of the AnSyMo research group.

Email Id: guillermoalberto.perez@uantwerpen.be

• Nathanael Fijalkow full-time (permanent) researcher at CNRS in LaBRI, Bordeaux

Email Id: nathanael.fijalkow@labri.fr

• Nicolas Markey CNRS senior researcher at IRISA

Email Id: nicolas.markey@irisa.fr

• B. Srivathsan Professor, Chennai Mathematical Institute

Email Id: sri@cmi.ac.in

• Madhavan Mukund Professor and Dean of Studies, Chennai Mathematical Institute

Email Id: madhavan@cmi.ac.in