ARIJIT SHAW

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EDUCATION

Chennai Mathematical Institute   *2017 - 2019*
M.Sc., Computer Science   Current GPA: 8.60/10

Jadavpur University, Kolkata   *2013 - 2017*
B.E., Computer Science and Engineering   Overall GPA: 7.10/10

PUBLICATION

A Deadline-partition Oriented Heterogeneous Multi-core Scheduler for Periodic Tasks
with Sanjay Moulik, Rajesh Devaraj, Arnab Sarkar in IEEE PDCAT '17, Dec, 2017.

TECHNICAL STRENGTHS

Computer Languages	C/C++, Python, Haskell, Java
Tools and Solvers	NuSMV, CUDD, CBMC, Z3, MathSAT
Theorem Provers	Coq, PVS
Others	LaTeX, Shell Script.

RESEARCH INTERESTS

Model Checking and Software Verification
SAT and SMT Solvers
Automata theory and Logic
Application of Approximation and Randomized algorithms.

RESEARCH EXPERIENCE

National University of Singapore   July 2019 - Present
Research Internship

· Development of a Local Search based SAT solver.
  with Dr. Kuldeep S. Meel, School of Computing.

Chennai Mathematical Institute   January - June 2019
M.Sc. Thesis

· Efficient Software Model Checking for program with Arrays within 2LS
  with Prof. Mandayam Srivas.

Chennai Mathematical Institute   August 2018 - November 2018
Course Project

· Development of a Trace Abstraction based Software Model Checker. [Github]
  with Prof. Mandayam Srivas.

Tata Research Development and Design Centre, Pune   June 2018 - July 2018
Research Internship

· Development of a CEGAR based algorithm for verification of concurrent systems.
  with Anand Yeolekar, Verification and Validation Team.

Jadavpur University   September 2016 - March 2017
Undergraduate Project

· Use of game theory to find influential node in big data of Social Network
  with Dr. Subhadip Basu, Dept. of Computer Science and Engineering.

IIT Guwahati   May - July 2015
Summer Internship

· Development of DP-Fair Scheduling System for Heterogeneous multiprocessor systems
  with Dr. Arnab Sarkar, Dept. of Computer Science and Engineering.

ACADEMIC ACHIEVEMENTS

Selected for JRF by UGC NET (Percentile 99.991) December 2018.
Ranked 11th in JEST Theoretical Computer Science, 2017.
Selected for Interviews, TIFR Graduate Admissions, 2017.
GATE CS 2017 score 721 (All India Rank - 576).
Selected for Internship, R.C.Bose Centre for Cryptology, ISI, Kolkata.
Ranked 232 in the WBJEE, 2013.

TALKS AND CONFERENCES

Conferences Attended

- 3rd Indian SAT-SMT School   *IIIT Hyderabad, Dec 2018*

- 7th Indian School on Logic and its Applications   *IIEST Shibpur, Dec 2018*

- Complexity, Algorithms, Automata and Logic Meet (CAALM)   *CMI, Jan, 2019*

Talks

- "Alternation Removal in Alternating Automata." as part of the course 'Logic Automata and Games'.

- Presented our tool for software verification in a lecture in CMI.

Teaching Assistantship

- Data Mining and Machine Learning .   *Instructor : Prof. Madhavan Mukund*

- Model Checking and Software Verification   *Instructor : Prof. Mandayam Srivas*

RELEVANT COURSES

Graduate Courses	**Undergraduate Courses**
Computational Complexity Theory	Operating Systems
Advanced Algorithms	Computer Networks
Logic, Automata, Games	Compiler Design
Model Checking and Software Verification	Computer Organization & Architecture
Concurrency Theory	Cryptography
Symbolic Analysis with SMT Solvers	Machine Learning
Games on Graphs	
Interactive Theorem Proving	

PERSONAL DETAILS

Languages Proficient	Bengali, English, Hindi.
Date of Birth	July 14, 1995

REFERENCE

Mandayam Srivas
Adjunct Professor, Chennai Mathematical Institute   mksrivas@cmi.ac.in

B Srivathsan
Associate Professor, Chennai Mathematical Institute   sri@cmi.ac.in

Arnab Sarkar
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