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## CONTACT

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## LINKS

### CODECHEF

<https://www.codechef.com/users/ritam160198>

### GOOGLE SCHOLAR

<https://scholar.google.com/citations?user=sjZjjzcAAAAJ&hl=en>

### LINKEDIN

<https://www.linkedin.com/in/ritam-guha-08b9a3138/>

## PROGRAMMING LANGUAGES

C, C++, Java, MATLAB, Python

## EXTRA-CURRICULAR

- Member of IEEE student sector since August 2019
- Participated in "Jontro-Tontro", an intra-college robotics competition
- Mentored two groups of juniors to complete two different projects on feature selection in my third year (2018)

# RITAM GUHA

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I am always an enthusiastic learner. I am a simple guy with a simple strategy of thinking top-down and building bottom-up. I love interacting and discussing new ideas. With three years of experience in undergrad engineering course, I am a three-fourth engineer and yet my biscuit drops in my cup of tea.

**Special Interests:** Optimization, Machine Learning, Nature-inspired evolutionary algorithms, feature selection, image enhancement.

## EDUCATION

- 2016-2019** • **B.E. in Computer Science and Engineering**  
**Jadavpur University**  
**Overall CGPA: 9.19 (till 6<sup>th</sup> semester)**
- 2016** • **AISCE 2016 (12<sup>th</sup> Std.)**  
**Delhi Public School, Ruby Park**  
**95.4%, 4<sup>th</sup> in School, 7<sup>th</sup> in West Bengal**  
(as depicted by local news channel ABP Ananda)
- 2014** • **Madhyamik 2014 (10<sup>th</sup> Std.)**  
**Ramakrishna Mission Boys' Home High School, Rahara**  
**95.86%** (100% in all 3 Science subjects, School Topper, 12<sup>th</sup> in West Bengal)

## EXPERIENCE

- June,2019- July,2019** • **Probe Information Services Pvt. Ltd.**  
Software Engineer intern  
**Contributions:**
  - Developed an automated web-scraping program (using Java Selenium framework) to store trademark registry information of every Indian company associated with Ministry of Corporate Affairs (MCA).
  - Created a basic co-occurrence matrix-based NLP program to perform company oriented named entity recognition.**Learnings:**
  - Visited Probe's data warehouse in Namakkal, Salem and got to learn the company workflow. Interacted with the employees working in the manual team and attended a meeting between Probe and NextWealth organization.
  - Learnt the importance of code refactoring while Probe was going through a complete refactor of its UI code.
  - Got to know some sophisticated tools used in industry like version control systems, message queues, database systems etc.

## PERSONAL ACHIEVEMENTS

- Received INSPIRE award from Government of India, Ministry of Science & Technology for best performance in the school in science group.
- Ranked 68th in West Bengal Joint Entrance Examination (WBJEE, 2016).
- Secured 1st position in school and 12th position in the state level in 10<sup>th</sup> Standard Board examination (WBBSE). Secured 7th position in the state level (As depicted by local news channel ABP Ananda) in 12<sup>th</sup> Standard Board examination (CBSE).
- Currently holding the 2nd position in the Department of Computer Science and Engineering of Jadavpur University with an overall CGPA of 9.19 out of 10 (till 6th semester of the curriculum)

## REFERENCES ON REQUEST

### Dr. Ram Sarkar

Associate Professor,  
Department of Computer Science and Engineering,  
Jadavpur University,  
Email ID: rsarkar@cse.jdvu.ac.in,  
ramjucse@gmail.com.

### Dr. Mita Nasipuri

Professor,  
Department of Computer Science and Engineering,  
Jadavpur University,  
Email ID: mnasipuri@cse.jdvu.ac.in,  
mitanasipuri@gmail.com.

### Mr. Goutam Dan

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## COLLEGE PROJECTS

From my second year in college till now, I have worked on a well-known pattern recognition problem called feature selection (FS) and some other optimization problems under supervision of Prof. Ram Sarkar and Prof. Mita Nasipuri. Some of my projects are listed below:

- Construction of a wrapper-filter Ant Colony Optimization (ACO) model.
- Modification of existing Genetic Algorithm (GA) technique to form a histogram-based multi-objective GA. Hybridization of GA and Great Deluge Algorithm (GDA) to improve the local searching capabilities of GA.
- Implemented a hybridized version of Gravitational Search Algorithm (GSA) and Particle Swarm Optimization (PSO) to perform FS over script identification datasets and achieved an improvement of nearly 5% recognition accuracy while using only 70% of the features.
- Modified an optimization algorithm called Selfish Herd Optimizer and applied it to perform Image Contrast Enhancement of 24 images present in an open source Kodak dataset.
- Currently in the process of modelling a completely new optimization algorithm inspired from the movement of ground water guided by Darcy's law.

## PUBLICATIONS

Some of my UG research work got published in reputed journals under the banner of Springer, De Gruyter etc. Citations of few of them are mentioned below. The related papers can be found in my Google Scholar profile.

- Ghosh, Manosij, Ritam Guha, Ram Sarkar, and Ajith Abraham. "A wrapper-filter feature selection technique based on ant colony optimization." *Neural Computing and Applications*: 1-19.
- Guha, Ritam, Manosij Ghosh, Souvik Kapri, Sushant Shaw, Shyok Mutsuddi, Vikrant Bhateja, and Ram Sarkar. "Deluge based Genetic Algorithm for feature selection." *Evolutionary Intelligence* (2019): 1-11.
- Ghosh, Manosij, Ritam Guha, Riktim Mondal, Pawan Kumar Singh, Ram Sarkar, and Mita Nasipuri. "Feature selection using histogram-based multi-objective GA for handwritten Devanagari numeral recognition." In *Intelligent Engineering Informatics*, pp. 471-479. Springer, Singapore, 2018.
- Guha, Ritam, Manosij Ghosh, Pawan Kumar Singh, Ram Sarkar, and Mita Nasipuri. "M-HMOGA: A New Multi-Objective Feature Selection Algorithm for Handwritten Numeral Classification." *Journal of Intelligent Systems*.