

Dr. Ritu Kundu

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Post-doctoral Researcher
School of Computing
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| EDUCATION | Ph.D. (Computer Science) Oct 2015 - July 2018 | King's College London |
| | M.Sc. (Advanced Computing) 2013 - 2014 | King's College London C Score: 82 |
| WORK EXPERIENCE | Intern Sep 2014 - Dec 2014 | King's College London |
| | Software Developer Nov 2010 - Apr 2013 | Ministry Of Home Affairs, GoI |
| RESEARCH AFFILIATION | Genome Institute of Singapore (GIS) [2019] School of Computational Science and Engineering, Georgia Tech [March 2018] Department of Computer Science, University of Helsinki [January 2018] | |
| AWARDS & HONOURS | King's Outstanding PhD Thesis Prize (sponsored by Elsevier) [2019]. Outstanding Teaching Assistant Award (2016-17 academic session) [2017]. Best overall performance (M.Sc., Advanced Computing) [2014]. Excellent performance (Ministry Of Home Affairs, GoI) [2012, 2013]. Deepika Wanganoo Memorial prize (ranked 1st (B.A.Sc Electronics) in the entire University of Delhi) [2008]. | |
| SELECTED RESEARCH GRANTS & FUNDING | <i>Global Research Grant</i> awarded by the Centre for Doctoral Studies and King's Worldwide [2017, 2016]. <i>Small Grant (Scheme 7)</i> awarded by Institute of Mathematics & its Applications (IMA) [2016]. <i>Doctoral Training Partnership (DTP)</i> awarded by the Engineering and Physical Sciences Research Council (EPSRC) [2015 - 2018]. | |
| SELECTED COMMITTEE MEMBERSHIP & COMMUNITY SERVICE | Selected Talks Georgia Tech, University of Cape Town, California State University Channel Islands, University of Hong Kong, National Taiwan University, National University of Singapore, University of Lisbon (Instituto Superior Tecnico), University of Helsinki, Murdoch University (Perth, Australia) | |
| | Guest Editor: LSD & LAW 2017 Special Issue of the Journal of Discrete Algorithms (JDA) | |

Reviewer:

- 2019: Theoretical Computer Science
- 2018: Algorithms for Molecular Biology, Information Processing Letters, Special issue of Discrete Applied Mathematics (DAM) on Stringology
- 2015-2017: Special issue of Fundamenta Informaticae, ISAAC, RECOMB, IWCCA, LATA, PSC, MACIS

Co-lead Organiser & Co-chair:

EPSRC Algorithms Network's workshop [2018], LSD&LAW [2017], MatBio [2016].

**SELECTED
PUBLICA-
TIONS**

R. Kundu, J. Casey, and W. Sung, **Hypo: super fast & accurate polisher for long read genome assemblies**, Biorxiv, 2019.

T. Kociumaka, R. Kundu, M. Mohamed, S. P. Pissis, **Longest Unbordered Factor in Quasilinear Time**, in *29th International Symposium on Algorithms and Computation (ISAAC 2018) proceedings*, pp. 70:1–70:13.

R. Kundu, T. Mahmoodi, **Mining Acute Stroke Patients Data using Supervised Machine Learning**, in *Mathematical Aspects of Computer and Information Sciences: MACIS 2017, Proceedings*, Springer, 2017, pp. 364–377.

C. S. Iliopoulos, R. Kundu and S. P. Pissis, **Efficient Pattern Matching in Elastic-Degenerate Texts**, in *Language and Automata Theory and Applications: LATA 2017, Proceedings*, Springer, 2017, pp. 131–142.

M. Crochemore, C. S. Iliopoulos, T. Kociumaka, R. Kundu, S. P. Pissis, J. Radoszewski, W. Rytter, T. Walen, **Near-Optimal Computation of Runs over General Alphabet via Non-Crossing LCE Queries**, in *International Symposium on String Processing and Information Retrieval (SPIRE)*, Springer, 2016, pp. 22–34.

C. S. Iliopoulos, R. Kundu, M. Mohamed, F. Vayani, **Popping Superbubbles and Discovering Clumps: Recent Developments in Biological Sequence Analysis**, in *Algorithms and Computation: WALCOM Proceedings*, Springer, 2016, pp. 3–14.

M. Crochemore, C. S. Iliopoulos, R. Kundu, M. Mohamed, F. Vayani, **Linear algorithm for conservative degenerate pattern matching**, *Engineering Applications of Artificial Intelligence*, vol. 51, 2016, pp. 109–114.

L. Brankovic, C. S. Iliopoulos, R. Kundu, M. Mohamed, S. P. Pissis, F. Vayani, **Linear-Time Superbubble Identification Algorithm for Genome Assembly**, *Theoretical Computer Science*, vol. 609, Part 2, 2016, pp. 374–383.

C. Barton, C. S. Iliopoulos, R. Kundu, S. P. Pissis, A. Retha, F. Vayani, **Accurate and efficient methods to improve multiple circular sequence alignment**, in *Experimental Algorithms: 14th International Symposium, (SEA) Proceedings*, Springer, 2015, pp. 247–258.