



Arvind Iyer

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Links: <https://scholar.google.co.in/citations?user=0q8O0ecAAAAJ&hl=en>
<https://github.com/Arvindiyaer>

Education

Master of Technology in Computational Biology (Pursuing)

Center for Computational Biology, IIITD

2016 - 2018, New Delhi India

Advisor: Dr. Lipi Thukral (CSIR IGIB)

CGPA: 7.83 /10

Thesis Title: Revealing Dynamic Architecture of Lipidated Proteins

Working on understanding the sequence and structural properties of lipidated proteins, a class of post-translational modification.

Bachelor of Engineering in Information Technology

Birla Vishvakarma Mahavidyalaya, GTU

2012 -2016, Gujarat India

Advisor: Dr. Keyur Brahmbhatt

Project Work: Developed an interactive system to assist lawyers and law enforcement agency.

CGPA: 8.51/10

Research Experience

Internship

CSIR-Institute of Genomics and Integrative Biology (CSIR- IGIB)

2017, New Delhi India

Lab: Computational Structural Biology (Dr. Lipi Thukral)

Worked on understanding the effect of cancer-related single nucleotide polymorphism on proteins using molecular dynamic simulations.

Research Publications

Manuscript Published/Accepted

Divyanshu Srivastava*, **Arvind Iyer***, Vibhor Kumar, Debarka Sengupta;
CellAtlasSearch: a scalable search engine for single cells, Nucleic Acids Research,
gky421, <https://doi.org/10.1093/nar/gky421>

Neelansh Garg*, Apuroop Sethupathy*, Rudraksh Tuwani*, Rakhi NK*, Shubham
Dokania*, **Arvind Iyer***, Ayushi Gupta*, Shubhra Agrawal*, Navjot Singh*, Shubham
Shukla*, Kriti Kathuria*, Rahul Badhwar, Rakesh Kanji, Anupam Jain, Avneet Kaur,
Rashmi Nagpal, Ganesh Bagler; FlavorDB: a database of flavor molecules, Nucleic
Acids Research, Volume 46, Issue D1, 4 January 2018, Pages D1210–D1216,
<https://doi.org/10.1093/nar/gkx957>

Manuscript in Preparation

Sanchita Jain*, Surabhi Rathore*, **Arvind Iyer***, Lipi Thukral; m-Mechanics: A
comprehensive resource of membrane mechanical proteins.

Arvind Iyer*, Lipi Thukral; Global Analysis elucidating sequence and structural
properties of Lipidated proteins.

*co-first/first authors

Academic Awards & Achievements

Won **Best Poster Award** in EMBO-INDIA Symposia on Big Data in Biomedicine
held at New Delhi 25th -27th February 2018.

Qualified GATE (Graduate Engineering Examination) in 2016 in Computer Science.

Mini Projects

Network analysis of *C. elegans* neuronal network.

- Used Network Biology concepts to understand network properties of *C.elegans* connectome .

Brugada Syndrome:- Studying the structural defects in sodium ion channel protein.

- As practical bioinformatics project studied about disease and gene, proteins related to it. The project is available at <https://arvindkiyer.bitbucket.io/brugada/>.

Mathematical Modeling of Parkinson's Disease based on Inverse Warburg effect

- As course project made an ODE model for Parkinson's Disease by concentrating on oxphos cycle and inverse Warburg effect.

Implemented a Work-Sharing Runtime : Cotton in C++

- As part of parallel programming course, implemented a work-sharing runtime to run jobs in parallel.

Skills & Hobbies

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- **Programming Language:** Python, C, C++, Java, C#, Javascript, SQL, NoSQL, R, Cytoscape, Openbabel, PHP, etc.
 - **Languages:** English, Tamil, Hindi, Gujarati.
 - **Hobbies :** Reading books, chess and exploring music.

Teaching & Leadership

- **Teaching Assistant:**
 - Monsoon 16: TA for undergraduate course System Programming.
 - Winter 16: TA for undergraduate course Data Structures and Algorithms.
 - Monsoon 17: TA for undergraduate and graduate course Algorithms in Computational Biology.
 - Winter 17: TA for undergraduate course Design and Analysis of Algorithms.
- **Leadership**
 - Served as Treasurer of Student Council Body IIITD for 1.5 years
 - Founded Bio-Bytes, a life science club in IIITD and served as coordinator for 2 years.

References

- 1] **Dr. Lipi Thukral**
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Sukhdev Vihar, Mathura Road New Delhi, India.
Tel: 91-11-29879 201
E-mail: lipi.thukral@igib.in
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