CURRICULUM VITAE

Shaurya Jauhari, PhD

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Educational Qualifications:

- **Doctor of Philosophy (Ph.D.)**
  University : Jamia Millia Islamia, New Delhi, India.
  Supervisor : Prof. (Dr.) S.A.M. Rizvi.
  Year : 2018

- **Master of Computer Applications (M.C.A.)**
  University : Uttar Pradesh Technical University (U.P.T.U.)
  Year : 2009
  Subject(s) : Computer Applications

- **Bachelor of Science (B.Sc.)**
  University : University of Lucknow
  Year : 2005
  Subject(s) : Mathematics, Statistics, and Computer Applications.

Research Interests:

- Discipline : Bioinformatics, Biostatistics, Systems Oncology.
- Area : Enrichment Analysis, Gene Expression Data Analysis, Machine Learning, Mathematical Modeling.

Experience:

- **M/S Ellicon**
  Network Assistant (May 2009 – January 2010)

  I have closely worked with experienced networking professionals, at the client side, to help resolve networking problems. I was also part of the network setup and establishment of Intranet.

- **AtSa Technologies Pvt. Ltd.**
  Software Engineer (January 2010 – December 2011)

  Designed and wrote program code for supporting web applications and implementing various web-based services in the new and existing websites.

- **Institute of Stem Cell Biology and Regenerative Medicine, Tata Institute of Fundamental Research.**
  Post-Doctoral Fellow (June 2017 – November 2017)

  RNA-seq data analysis as outputted by the Next Generation Sequencing technologies.

- **Shri Ramswaroop Memorial University**

  Visiting Faculty (January 2018 – May 2018)

  Taking lectures on the Theory of Automata.

- **CSIR- National Botanical Research Institute**

  Research Associate (June 2018 – August 2018)

  Computational expounding of nucleosomal remodeling with accord to transcriptional profile in Arabidopsis thaliana.

- **Guangzhou Medical University**

  Postdoctoral Fellow (September 2018 – April 2021)

  Gene Set Enrichment Analysis of the genomic regions, from the perspective of 3D genome organization.

- **Freedom English Academy**

  Student Mentor (May 2019 - Present)

  Volunteering, vide an interaction schedule, with a group of underprivileged, yet ambitious individuals that want to stay persistent with scaling their careers.

Workshops and Conferences:

- **Computational Genomics & Its Applications to Plant Biology**
  (14, 15 March 2013) Organized by DISC, NIPGR, New Delhi.

- **Current Challenges on Bioinformatics in Biotechnology**
  (9, 10 April 2013) Organized by TERI University, New Delhi.

- **References Management in Research**
  (26 May 2015) Organized by Jamia Millia Islamia, New Delhi.

- **Exploratory Data Analysis (EDA) with R**

  (31 October 2015) Organized by Sharda University, Greater Noida.

- **7th DBT-BIF National Workshop on Translational Bioinformatics**

  (15-16 February 2017) Organized by Jamia Millia Islamia, New Delhi.

- **11th International Conference on Stem Cells and Regenerative Medicine/ 6th Annual Conference of Chinese Society for Regenerative Cell Biology**

  (26-28 November 2018) Organized by CAS-GIBH.

Achievements:

- **China Postdoctoral Science Foundation (CPSF) 2019 Grant awardee** (No. 2019M652847).

Oral/ Poster Presentations:

- Invited at ACM sponsored 9th Inter-Research-Institute Student Seminar in Computer Science (IRISS) for an oral presentation held at BITS, Goa on February 5th, 2015, co-located with the ACM India Annual event 2015.
- **"**Popularity and performance of bioinformatics software – The case of Gene Set Analysis", Poster Presentation, ISCB-LA SolBio BioNetMX 2020.

Publications:

Journals:

- Agarwal N., **Jauhari S.**, Srivastava R., "Epigenetic Players in the Systemic Acquired Resistance Pathway: Combat-Framework against Pathogenic Infestation.". (*work in progress*)
- **Jauhari S.** et al., "Inferring distant chromatin interactions via machine learning models ". (*work in progress*)
- Xie, C., **Jauhari, S.** & Mora, A., "Popularity and performance of bioinformatics software: the case of gene set analysis." *BMC Bioinformatics* **22,** 191 (2021). DOI: 10.1186/s12859-021-04124-5 (**JIF 2018: 2.511, Q1**)
- **Jauhari S.**, Rizvi S.A.M., "An Indian Eye to Personalized Medicine", Computers in Biology and Medicine, Elsevier, 59(2015), pp. 211-220, ISSN: 0010-4825. (**JIF 2018: 2.286, Q2**) DOI: 10.1016/j.compbiomed.2014.07.001
- **Jauhari S.**, Rizvi S.A.M., "Mining Gene Expression Data focusing Cancer Therapeutics: A Digest", IEEE/ ACM Transactions on Computational Biology and Bioinformatics, **11**(3), pp. 533 – 547, ISSN: 1545-5963. (**JIF 2018: 2.896, Q2**) DOI: 10.1109/TCBB.2014.2312002
- **Jauhari S.**, Rizvi S.A.M., "*A priori*, *de novo* mathematical exploration of gene expression mechanism via regression viewpoint with briefly catalogued modeling antiquity", International Journal of Biomathematics, World Scientific, **10**(1), ISSN: 1793-5245. (**JIF 2018: 0.894, Q2**) DOI: 10.1142/S1793524517500061
- Jauhari R.**, Jauhari S.,** Rizvi S.A.M., "WDR88, CCDC11, and ARPP21 genes indulge profoundly in the desmoplastic retort to prostate and breast cancer metastasis.", Preprint. DOI: 10.1101/178566
- Jauhari R., Dhakal S., **Jauhari S.**, "Inferring propensity amongst lung and breast carcinomas via overlapped gene expression profiles", Preprint. DOI: 10.1101/178558

Book Chapters:

- *Structuring Gene Expression Mechanism with rudimentary Mathematical postulates.* InTechOpen- Biomathematics (*Accepted*). https://zenodo.org/record/4067097

Technical Acquaintances:

- Analysis Platforms/ Tools : UNIX, Octave, Cytoscape, Windows Server.
- Scientific Programming : R, Python.
- Documentation : Microsoft Office, Libre Office, LaTeX.

Massive Open Online Courses (MOOCs) taken:

- An intuitive introduction to probability- University of Zurich (Coursera)
- Data Science Maths Skills- Duke University (Coursera)
- Introduction to Genomics Technologies- Johns Hopkins University (Coursera)
- Whole genome sequencing of bacterial genomes: tools and applications- Technical University of Denmark (Coursera)
- Writing in the Sciences- Stanford University (Coursera)
- How to Use Git and GitHub (Udacity)

Professional Affiliations:

- Member | **Cancer Epigenetics Society (CES)**
- Freelance Copyeditor | Academic Communications Reviewer at **Kolabtree Inc.**
- Freelance Editor at **Cactus Communications Inc.**
- Manuscript Reviewer at **Springer** - Interdisciplinary Sciences: Computational Life Sciences.
- Manuscript Reviewer at **IEEE** - Journal of Biomedical and Health Informatics.
- Manuscript Reviewer at **Oxford Academic** – JAMIA Open.
- Manuscript Reviewer at **Hindawi** Publishing.
- Manuscript Reviewer at **SAGE** Publishing.
- Member | **International Society of Computational Biology (ISCB)**

Parallel Ventures:

- **Technical Writing and Tutorials (https://shauryajauhari.github.io)**

- **Drug Tales (http://www.drugtales.com)**

The core idea is to resuscitate a knowledge platform that is commonly shared by patients and enables them as well as clinicians, and drug manufactures to analyze first-hand feedback from the consumer regarding a drug or therapeutic efficacy. Leveraging the facts that (i) animal models do not properly emulate human physiology, (ii) drug discovery process is quite taxing on time and money, (iii) drug approval rate is disappointingly low, (iv) disease state is dynamic and evolves with therapy, and (v) patient feedback is never formally registered, when *off the record*. Technically, this completes the pipeline of drug delivery.

Projects:

- **Predicting Functional Role of Cis-Regulatory Elements (CPSF 2019)**

This work convolves eliciting interactions within the spatial localization of the genome inside the nucleus. The non-linear organization of the genome engenders distal regions to communicate and possibly regulate the genes therein. This scenario is exclusive to the metabolic pathways oriented to a cell type. We plan on developing a computational pipeline to envisage DNA clusters that mark biochemical reactions, hence driving production of proteins.

Personal Details:

Nationality	: Indian
Languages known	: English, Hindi, Chinese (Elementary).
Current Address	: C-278, Rajajipuram, Lucknow, Uttar Pradesh, India. Pin: 226017.
Permanent Address	: *As above*
Skype ID	: **shaurya.jauhari**