

Paurush Praveen

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Personal statement

To enter a challenging, innovative and high impact research environment, where I get an opportunity to utilize my scientific knowledge, statistical and analytical skills for performing challenging and effective and high impact applied bio-medical & health research.

Key Skills

- Statistics, machine learning, systems biology, algorithm design
- Excellent communication, leadership and presentation skills
- Professional English proficiency

Employment History

Researcher at THE MICROSOFT RESEARCH-UT COSBI, (ITALY)

(September 2013 – Present)

Achievements and responsibilities:

- Statistical analysis of high throughput omics data (NGS, Gene Expression etc)
- Service and consultancies to clients from Pharma and health industry
- Develop, manage and communicate projects within and outside the local environment and collaborators
- Assist in recruitment process.

Research Assistant at FRAUNHOFER INSTITUTE FOR SCIENTIFIC COMPUTING AND ALGORITHM (GERMANY)

(March 2008 – Dec 2009)

Achievements and responsibilities:

- Worked on EU projects as research assistant for pathway analysis, data and text mining
- Provide analysis services to clients from Pharma industry

Education

University of Bonn, Bonn (Germany)

(2010 – 2013)

PhD in Bioinformatics, (Pathway/network reverse engineering, inference and modelling)

Grade: *Magna cum lauda*

Bonn Aachen Center for IT Bonn (Germany)

(2007 - 2009)

Master of Science in Bioinformatics (**Thesis:** Network modelling in neglected diseases)

Grade: 'Gut' (A)

Acharya Institute of Technology, Bangalore (India)

(2002– 2006)

Bachelor of Engineering (**Project:** Opto-electric Bio-sensor design & prototype development)

Grade: *First class with distinction (A)*

Training

Course based on STANFORD CS221: Introduction to Artificial Intelligence
(2011)

Indian Institute of Technology (IIT) Kharagpur (India): Bioinformatics for proteomics and genomics
(2006)

Selected awards and scholarships

B-IT RESEARCH SCHOOL SCHOLARSHIP for PhD research in 2010
Ranks in National Physics Olympiad 2000 with a score of 98.2 percentile

Publications

Published in Peer reviewed journals, conferences talks and posters, please see attached annexure (**List of publications**) for details.

Bioinformatics skills

- Biological databases and webtools,
- Bioconductor, High throughput data analysis (expression assays, proteomics, metabolomics)
- Statistical learning tools and biostatistics.
- Data and text mining, Pathway/network inference and modelling

Computer skills

- UNIX, HPC platforms
- PERL, PYTHON
- R, MATLAB
- C, Java, SQL

Languages

English	Fluent (C2)
German	A2
Hindi	Mother tongue (C2)

References

Prof. Dr. Holger Froehlich

Prof. of Algorithmic Bioinformatics
B-IT Center, Bonn (Germany)

Email: frohlich@bit.uni-bonn.de

Prof. Dr. Martin Hofmann-Apitius

Head, Dept. of Bioinformatics
Fraunhofer Institute for Scientific Computing and Algorithms (SCAI)
Sankt Augustin (Germany)

Email: martin.hofmann-apitius@scai.fraunhofer.de

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Annexure: List of publication

Peer review journals

1. Boosting Statistical Network Inference by Incorporating Prior Knowledge from Multiple Sources, PlosOne, 8(6): e67410, 06 2013
2. Learning Gene Network Structure from Time Laps Cell Imaging in RNAi Knock-Downs, Bioinformatics, 29, 1534-1540, 2013.
3. Fast and Efficient Dynamic Nested Effects Models, Bioinformatics, 27, 238-244, 2011.

Under review/preparation

1. An integrative -omics study unveils the role of feeding for microbiota and immune system development in infants, Royal Society Interface (Under review)
2. Comparing microbial gut ecosystems: interaction networks in the saliva and in the stool. Plos Computational Biology (Under review)
3. EGFR/AMPK signaling network from perturbation data integrated with knowledge identifies novel therapeutic targets in adenocarcinoma, EMBO Molecular Systems Biology, (Under review)
4. PriorNet: R package to compute consensus probabilistic prior for networks from multiple knowledge sources, Bioinformatics (To be submitted)

Books

1. Bioinformatics with R cookbook, Packt Publishers, Birmingham (UK), 2014

Conference presentations

1. Integrative learning of gene essentiality using data and knowledge with cluster specific models. RECOMB/ISCB Conference on Regulatory and Systems Genomics, with DREAM Challenges and Cytoscape Workshops, San Diego (USA), 2014 (Poster)
2. Learning Gene Network Structure from Time Laps Cell Imaging in RNAi Knock-Downs (Highlight paper) German Conference in Bioinformatics 2013
3. Constructing informative prior from multiple knowledge sources to improve network inference, Rocky Mountain Bioinformatics 2012, Aspen (Colorado), USA (ORAL TALK) *

4. Boosting Statistical Network Inference by Incorporating Prior Knowledge from Multiple Sources; MLSB at ECCB 2012, Basel, Switzerland (ORAL TALK, Poster; also at ESCS)*
5. Fast and Efficient Dynamic Nested Effects Models, (Highlight Paper) ISMB Vienna, 2011
6. Efficient learning of signaling networks from time series data via dynamic nested effects model; ECCB 2010, Ghent, Belgium (POSTER)

* Award winning presentations