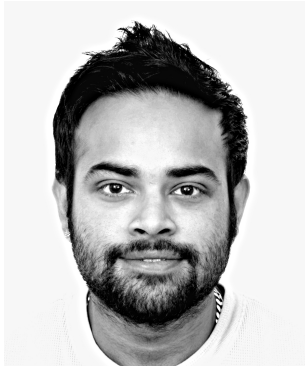


Sukhdeep Singh



Contact

sukhdeepsingh.eu
sukhdeepsingh.bio@gmail.com
GPG Key : goo.gl/xs6ZVv

Stewart Lab, Biotec
Tatzberg 47, 01307 Dresden,
Germany

Area of Expertise

ChIP-Seq, RNA-SEQ, NGS
data analysis, open source,
high performance computing,
complex data visualizations.

Programming Languages

♥ R, Bash/Shell, Javascript,
Perl-CGI, HTML, CSS, LATEX

Extra Curricular Activities

♥ Hiking, Regular
volunteering in Eco -
Conservation and Social
Innovation projects, Biking,
Ultimate Frisbee, Lead
national/international hike
tours, Globe trotting, Djing,
Peak bagging.

Access this CV online



Resume

Currently working at **Biotec** - Technical University of Dresden. My major research interests are computational **epigenetics**, investigating **histone modifications** and understanding **transcriptional** machinery in mouse **embryonic and differentiated stem cells**. I have been developing **computational pipelines** to handle and analyse the plethora of **NGS datasets** generated in-house and collaborating labs utilizing **High-Performance** computing. I have worked in diverse settings in several team-based and independent projects, where I have gained extensive computational, leadership, presentation, **independency** and large project organization skills in a broad range **scientific international environment**.

Research Experience

- | | | |
|-------------------|--|------------------|
| July, 2011 - | BIOTEC - Technische Universität Dresden
<i>Bioinformatician and PhD Student</i>
Working with Prof. Francis Stewart on Investigating Transcriptional and Epigenetic foundations of Ground State of Pluripotency and UP and several other collaborative projects. I have created automated data pre-processing and analysis pipelines utilizing HPC for next generation sequencing datasets (ChIP-Seq, RNA-Seq). | Dresden, Germany |
| Aug - Sep, 2011 | Wellcome Trust Sanger Institute
<i>Visiting Researcher</i>
Worked with Dr. Vivek Iyer on correlating gene targeting efficiencies with gene trap counts and the homology of 5' end repeats using the EUCOMM recombineering targeting vector resource. | Cambridge, UK |
| Oct - April, 2011 | Imperial College London
<i>Visiting Researcher</i>
Worked with Dr. Becca Asquith for investigating viral (SIV) dynamics using NGS datasets to identify specific tissues that could be initial drug delivery sites by measuring viral escape rates in animals. R package for the viral data analysis capable of processing large sequences was developed. | London, UK |
| July - Sept, 2010 | Imperial College London
<i>Visiting Researcher</i>
Worked with Dr. Timothy Ebbels on detailed analysis of LCMS data for identification of parent fragment pairs and investigation of coelution. R package LCMStats was developed. | London, UK |
| July - Aug, 2009 | University of Leicester
<i>MSC Steered Research Project-2</i>
Developed a web application called as WebModeller using Perl-CGI for proteomic data analysis and 3D modeling of a novel protein sequence. | Leicester, UK |
| June - July, 2009 | University of Leicester
<i>MSC Steered Research Project-1</i>
Microarray analysis to identify circadian genes from array profiles generated from Rat's Suprachiasmatic Nucleus. | Leicester, UK |
| Nov - Jan, 2009 | IPradar, Portus Corporate Finance
<i>Biomedical Market Research Project</i>
Analysis of relationships between diseases and technologies within a medical specialty and construction of a data resource of companies utilizing these technologies for surgical and non-surgical methods of spine. | Berlin, Germany |

Education

Jan, 09 - Jan, 10	University of Leicester MSc in Bioinformatics (Merit) Thesis : Structured Spreadsheet Web Interface for Neurophysiology Data Analysis. A web-application was developed for a functional reactive programming language called as Bugpan intended for experimenting on and modeling of dynamic systems	Leicester, UK
Aug, 04 - Jul, 08	Kurukshetra University B.Tech in Biotechnology (First Class Honours) Major Project: Drug Discovery for kidney stones using natural products	Kurukshetra, India

Internships

Jul - Aug, 07	Tulip Group of Companies Manufacturing and production of diagnostic kits, quality control and global distribution.	Goa, India
Jun - Jul, 06	IBI Biosolutions Training on in silico drug designing while finding potential drug for measles.	Chandigarh, India
Jan - Feb, 06	Creades Technologies Training program in advanced Bioinformatics software and applications.	Noida, India

Awards

Sep, 14	German Stem Cell Network (GSCN) Travel Award For European Summer School on Stem Cells & Regenerative Medicine (Hydra-X)	Hydra, Greece
Jun, 12	European Cooperation in Science and Technology (COST) Travel Award For attending NGS workshop at CSC IT Center for Science Ltd	Espoo, Finland
Aug - Sep, 07	Studentship by DAAD (German Academic Exchange Program) For attending summer course 'Biomedical Engineering in a European Perspective' at FH-OOW. I gained 6 ECTS credits and was evaluated as 'highly recommended'.	Wilhelmshaven, Germany
Mar, 07	ABHIYAAN-2007 Third prize in ScrewDaBug contest at a national level technical And cultural festival.	Mumbai, India
Nov, 06	VENATIO-2K6 Second prize in web designing contest at a national level technical symposium.	Haryana, India
Feb, 06	Environment Day Consolation Prize For "BioGas Plant" model in a state level competition by the Dept. of Renewable Energy.	Haryana, India

Talks and Posters

Mar, 15	Program of Early Mammalian Development and Systems Biology of Stem Cells (T) The H3K4 Methylation System in Mouse Embryonic stem cells	Oberstdorf, Germany
Nov, 14	Systems Biology of Stem Cells and Reprogramming (SYBOSS) Annual Meeting (T) Extracting the most out of your ChIP-Seq datasets	Cologne, Germany
Apr, 13	Gene Regulation and Information Theory (T) Investigating genome wide dynamics of histone methyltransferases in mouse ESCs.	Halle, Germany
Apr, 13	Deep Sequencing Day (T) Next Generation Sequencing in Epigenetics.	Dresden, Germany
Jul, 13	12th European Conference on Computational Biology, ISMB/ECCB (P) Investigating genome wide dynamics of histone methyltransferases in mouse ESCs (also volunteered)	Berlin, Germany
Feb, 13	Syboss/Digtop Workshop (T) Genome wide dynamics of Setd1a Complex	Dresden, Germany

Extracurricular

Jan, 13 - current	Biostars.org Editor at BioStar: An Online Question & Answer Resource for the Bioinformatics Community.	Worldwide Access
Jun - Jul, 15	Ryfylke Outdoor Recreation Board (Ryfylke Friluftsråd) Volunteer with Ryfylke Friluftsråd for ensuring general public access to the recreational areas.	Lindoy, Norway
Aug, 2014	Lysefjorden Utvikling AS Volunteer with Lysefjorden Utvikling for Trail maintenance and repair.	Lysefjord, Norway
Jul, 12	Global Foundaries Inc. Participated in Futurabia, a four day industry organizational simulation game	Radebeul, Germany