Pankti Gosar

Boston, MA, USA

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EDUCATIONAL QUALIFICATIONS

Master, Science: Bioinformatics, Northeastern University, Boston, MA — May 2023

Master, Science: Botany, University of Mumbai, Mumbai, India — April 2011
Specializing in Molecular Biology, Cytogenetics and Plant Biotechnology

Bachelor, Science: Botany, University of Mumbai, India — April 2008

SKILLS

Programming:
Python
R (Bioconductor and RShiny)
Shell scripting and Linux command line
Nextflow

Tools familiar with: High Throughput NGS scRNA-seq, ATAC-seq, RNA-seq, eClip-seq, smRNA-seq data analyses and computational biology tools like bowtie, bwa, Alevin-Fry, AlevinQC, Kallisto, Cellranger, UniverSC, DESeq2, etc., and packages like Scanpy, Seurat, etc. Familiar with collaborative and version control tools like GitHub, public datasets like TCGA,10Xgenomics, ENCODE, NCBI, GEO, etc. and cloud and cluster computing environments. Worked on data processing pipelines on Nextflow and used Docker on AWS servers. Worked on statistical analyses like ANNOVA, PCA, DEG, GSEA, clustering, regression, linear models, etc., for disease association.

Laboratory: Proficiency in the following wet lab techniques: Plant tissue culture, Sterile microbiological methods, Basic molecular biological techniques (extraction, visualization and purification) connected to handling proteins and nucleic acids, Cell Sorting using FACS, Cell culture techniques using mammalian cells (transfection, cryopreservation, immunohistochemistry).

WORK EXPERIENCE

Computational Biology Co-op — July 2022 – December 2022

NextRNA Therapeutics, Boston

Utilized statistical analysis techniques on high throughput sequencing data, among others, to identify novel long non-coding RNA targets with therapeutic potential for a variety of diseases. Conducted data analyses sourced from public consortia leading to the discovery of promising lncRNA candidates. Proficiently adapted, debugged, and executed Nextflow pipelines to preprocess data, for alignment, quality control, coverage and feature count processes and create visualizations for differential expressions. Effectively communicated findings, interpretations, and graphical representations to a multidisciplinary team of scientists. Maintained thoroughly documented code to ensure transparency and reproducibility.

Teaching assistant — August 2017 - May 2019

Indian Institute of Science, Bangalore, India

Managed conducting trial runs of experiments, preparation for practical sessions, demonstrating operation of laboratory instruments for undergraduate students, answering queries of students alongside research scholars and PhD students, maintenance of Laboratory equipment and ordering supplies when required.

Lecturer — July 2011 to March 2016

Guru Nanak College of Arts, Science & Commerce, Mumbai, India

Conducting theoretical and practical sessions for the students, helping them learn Botany.