Vishwesh Viraj Deshpande

+91-9112289201 vishweshvd07@gmail.com https://www.linkedin.com/in/vishweshd/ https://vishd07.github.io/portfolio/

Education

Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D.Y. Patil Vidyapeeth **Aug 2019 – May 2024**

Master of Technology (Integrated) in Biotechnology; GPA: 9.31/10

Relevant Courses: Mathematics and Statistics, C Programming, Artificial Intelligence, Design analysis and algorithms, Concepts of Bioinformatics, Perl and Bioperl, Molecular Modelling and Cheminformatics

Experience

BiomarkIQ Private Limited **Aug 2024 – Present**

Data Analysis Trannie – Biomarker and Discovery Analysis *Pune, MH, India*

- Conducted analysis on various types of cancer to identify biomarkers by extracting and reviewing relevant research papers from NCBI and other databases, contributing to the development of the company's early detection pipeline.
- Involved in development of company's VarSee AI pipeline. Learning and implementing machine learning algorithms on customs made datasets.

MyGenomeBox India Private Limited **July 2023 – June 2024**

Bioinformatics Intern *Pune, MH, India*

- Developed a computational pipeline for immunodeficiency disorder analysis using GATK and Python to generate patient-ready reports from raw data, including VCF file generation, database curation, and cross-referencing immunodeficiency-related rs IDs.
- Developed and implemented Python scripts for analyzing healthcare data obtained in CSV format from affiliated hospitals. The data was microarray and CNV test results. I used libraries like NumPy, Pandas, and Matplotlib to process, analyze, and visualize this data according to project and company needs.

Datar Cancer Genetics Limited **June 2022 – July 2022**

Summer Intern *Nashik, MH, India*

- Performed nucleic acid extractions (genomic DNA, exosomal RNA, FFPE DNA/RNA, cfDNA) and quantified samples using Nano-Drop and Qubit Flex Fluorometer. Assisted in DNA library analysis using PCR, gel electrophoresis and Bioanalyzer.
- Gained hands-on experience with NGS (ION TORRENT), in-house variant analysis pipelines, and databases like COSMIC and dbSNP. Assisted with Perl scripting for analysis under senior scientists

Dr. D. Y. Patil Biotechnology and Bioinformatics Institute **July 2020 – Sept. 2020**

Summer Research Intern *Pune, MH, India*

- Worked under the guidance of Dr. Manisha Junnarkar. During this training, I acquired knowledge about scientific writing, comprehensive literature search, data organization, data analysis and learned about what are the primary steps to conduct research. I worked on a review article – "Nutraceuticals, the Gut Microbia, and Human Health

Projects

Understand Codon Bias and Gene Clustering in Mycobacterium Species

- Analyzed codon usage in pathogenic and non-pathogenic Mycobacterium species using RSCU, neutrality analysis, and clustering to identify evolutionary patterns.

Development of a Computational Pipeline for the Identification of Pathogenic Variants Associated with Primary Immunodeficiency Disorders.

- Developed a computational pipeline using GATK and Python to process raw sequencing data, generate VCF files, identify immunodeficiency-related variants, and automate report generation for patient analysis.

Lung Cancer Risk Predictor Using Machine Learning.

- Built a machine learning model to predict lung cancer using patient biomarker data. Implemented feature selection, data preprocessing, and classification algorithms, achieving 93% accuracy in risk prediction.

Technical Skills

Languages and Framework: Python, R, Bash, Pandas, Biopython, Scikit-learn, Perl.
Bioinformatics: AutoDock, GATK, BLAST, Bowtie, BWA, Samtools, IGV, Bedtools, NGS Variant analysis.
Tools: Microsoft Office (Word, excel, Power Point), Git, Visual Studio.

Certificates

- **100 Days of Code: The Complete Python Pro Bootcamp**
- **The Data Science Course: Complete Data Science Bootcamp 2024.**
- **Data Analytics Consulting Virtual Internship**
- **Computational Neuroscience**

Languages

English – Native**, Hindi –** Native**, Marathi –** Native**, German –** Beginner