ADITHYA S

BIOINFORMATICIAN

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PROFESSIONAL SUMMARY

Motivated postgraduate student in Computational Biology and Bioinformatics with expertise in NGS data analytics. Proficient in R, Python, and Linux-based bioinformatics workflows, with a strong foundation in Molecular Biology. Actively seeking opportunities to apply and expand expertise in NGS data analysis, variant discovery, transcriptomics, and metagenomics, with a focus on computational approaches to molecular and genomic research.

EXPERIENCE

PROJECT- TRANSCRIPTOME DATA ANALYSIS TO IDENTIFY THE RELATION BETWEEN ADIPOGENESIS AND ANGIOGENESIS

Present

Under the guidance of Dr. Arya K. R., University of Kerala
Analyzing transcriptomic datasets to explore the molecular relationship between adipose tissue formation (adipogenesis) and blood vessel development (angiogenesis). The study utilizes RNA-Seq data processing, differential gene expression analysis, and pathway enrichment using R and Linuxbased bioinformatics tools.

SELF PROJECT -VARIANT CALLING OF GERMLINE VARIANTS IN A HUMAN WGS PAIRED END READS USING GATK GOOD PRACTICE WORKFLOW

Developed a complete variant calling workflow in WSL (Windows Subsystem for Linux)for identifying genomic variants from NGS data.The pipeline involved raw sequence quality assessment, adapter and low-quality base trimming, alignment of reads to the reference genome (hg38), sorting and indexing of BAM files, and variant detection using GATK. Post-processing included variant filtration and annotation to identify SNPs and INDELs. The project strengthened understanding of data preprocessing, alignment strategies, and variant interpretation in genomics.

DEGREE PROJECT WORK - BIOCHEMICAL ANALYSIS OF MILK FROM DIFFERENT SOURCES

Under the guidance of Dr. Boban P T, Government College Kariavattom
Conducted a comparative biochemical analysis of milk from various animal and commercial sources to evaluate nutritional composition, protein and lipid content, and physicochemical properties. Performed adulteration tests to detect common contaminants such as urea, starch, detergent, and formalin using standard biochemical assays. Strengthened proficiency in biochemical testing, quality assessment, data interpretation, and laboratory analytical techniques.

EDUCATION

M.Sc. Computational Biology

08/2024 - Present

Department of Computational Biology and Bioinformatics, University of Kerala
Specialization: Next-Generation Sequencing (NGS) Data Analytics.
Relevant Coursework: Bioinformatics, Genomics, Big Data in Biology, and Machine Learning for Biological Systems.

B.Sc. Biochemistry

06/2021 - 06/2024

Government of College Kariavattom , University of Kerala

Certificate Course in Quality Assurance and Quality Control

01/2024 - 03/2024

Government of College Kariavattom , University of Kerala

WORKSHOPS

- One-Day Workshop on Computer-Aided Drug Discovery, Dept. of Computational Biology & Bioinformatics, University of Kerala (March 4, 2025)
- Coursera without Certification - “Data Analysis with R Programming by Google”

SKILLS

Tools&Softwares

- RNA seq analysis
- Variant Calling using GATK
- Variant interpretation
- Genome Alignment
- SPAdes and QUAST
- Shell Scripting Using Bash
- Perl Programming
- Python
- NGS Tools
- R Programming
- HTML,CSS,JavaScript
- Microsoft Excel

Wet Lab Skills

- PCR DNA Isolation
- Phytochemical Analysis
- Clinical Biochemistry
- Gel Electrophoresis

Developmentary Skills

- Leadership
- Communication
- Time Management
- Coordination and Teamwork

LANGUAGES

English

Hindi

Tamil

Malayalam

REFERENCE

References are available on request