RAKESH INDUKURI

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SUMMARY

Highly motivated and dedicated bioinformatics graduate student with a strong skill set in fundamental programming concepts, data analysis, and a passion for learning and working on creative projects in emerging areas of bioinformatics and computational biology. Seeking to expand knowledge and skills to take on challenging roles in the field, and contribute to the advancement of the field with innovative projects.

EDUCATION

Northeastern University, Boston, MA **Apr 2024 (Expected)**
Masters in Bioinformatics GPA: 4.00/4.00
Related Coursework: Bioinformatics Methods-1 and 2, Statistics for Bioinformatics, Bioinformatics Programming.

Sathyabama Institute of Science and Technology, India **Aug 2021**
Bachelor of Technology in Bioinformatics GPA: 9.72/10.00
Related Coursework: Machine Learning, Gene Expression and Microarray Analysis, Cancer Biology and therapeutics, Statistics and Random Models

TECHNICAL SKILLS

Programming Languages & Technologies: Python (Scientific Programming, Software development, algorithms), R (statistics and data visualization), Git, APIs, Basics of Oracle, MySQL, HTML, CSS, Hypothesis testing, Excel, Docker.

Packages: NumPy, Scikit-learn, Pandas, Matplotlib, Seaborn, keras, tensorflow.

Bioinformatics tools: BLAST, FASTA, Bowtie2, Samtools, Trinity, DESeq, NGS analysis and workflow, Mainstream Bioinformatics databases for genomics and proteomics and data preprocessing.

Operating Systems: Mac, Linux, Windows

Bioinformatics Skills: Scripts to query bioinformatics databases such as NCBI, Automate BLAST searches, parse various bioinformatics file formats, perform pre-processing on biological data, Regular expressions, Sequence Analysis, Genome assembly, Transcriptome assembly.

PROJECTS

PROJECT: De novo transcriptome assembly and analysis, Northeastern University
Sept 2022 - Dec 2022

- Performed transcriptome assembly and analysis with Trinity and BLAST
- Assessed RNASeq Illumina reads for identification and annotation of differentially expressed transcripts including protein matches, descriptions, and GO terms

PROJECT: Genomic Data Analytics in Parkinson's Disease, Sathyabama Institute of Science and Technology
Jan 2021 - Apr 2021

- Developed a workflow and Evaluated impact of SNPs on 3 genes (SNCA, LRRK2, PARK7)
- Predicted effects of non-reported mutations utilizing homology models and structural analysis
- Identified potentially harmful variants through stability studies and data analysis

More Projects

EXPERIENCE - Organizing & Volunteer:

- **LEAD TALKS** [Sathyabama, Apr 2019]: Gave a talk on importance of "Gut microbiome and p53" to live audience(offline)
- **Volunteer - ICBBI'2019** [Sathyabama, Mar 2019]: International conference on "Emerging perspectives in bioengineering and biomedical informatics with special relevance to ethnomedicine in human health".
- **Organiser - CBMH-19** [Sathyabama, Sep 2019]: National conference on "Computational Biology & Medical Biotechnology"
- **Entrepreneurship Development Club** [Sathyabama Institute of Science and Technology**,** June 2020 to April 2021]: Office-bearer for Entrepreneurship Development Club. Responsibilities: Technical, HR and documentation team.

EXTRAS/ INTERESTS:

Data Analysis & Interpretation | Blockchain | API | Next Generation Sequencing techniques and Precision Medicine | R Language | Statistics | Data Mining & Pattern Finding | Web scraping | JavaScript | Software/ Application Development | JSON |