ARYAN BORUAH

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EDUCATION

Sri Venkateswara College, University of Delhi   **New Delhi**
B.Sc.(H). Biochemistry   *2022/2025*
- GPA: 3.2/4
- Coursework: Genetics, Cell Biology, Metabolism, Introductory Probability, Sampling Distribution, Statistical computation with R, Programming in Python, SPSS.

WORK EXPERIENCE

Indraprastha Institute of Information Technology
Supervisor: Dr. Tarini Shankar Ghosh   **New Delhi**
Research Intern   *September,2023-Present*
- Carried out metagenomic analysis of cardio gut microbiome profile of patients of different studies
- Developed Supervised Machine Learning Models like Random Forest, kNN, and logistic regression that can predict the relationship between Cardiometabolic disease markers and gut microbiome.
- Learned about PERMANOVA test, Principal Component Analysis, Random Forest, Leave One Out Cross Validation, Out of the Box predictions, wrote complex scripts in R and Python, logistic regression, and dimensionality reduction. (https://github.com/AryanBoruah10/R-env)

Miranda House, University of Delhi
Supervisor: Dr. Rekha Kumari   **New Delhi**
Research Intern   *June,2023-August,2023*
- Done a comparative analysis of the efficiency of different genome assembly tools. Carried out multiple sequence alignments of different strains of industrially important thermophilic bacteria found in the Indian subcontinent and then did a phylogenetic analysis of those thermophilic bacteria.
- Learned about Windows Subsystem for Linux, bash scripting, Miniconda, genome assembly tools (SPAdes, Flye, Megahit, Abyss, galaxy), BLAST, MAAFT, MEGA

Jawaharlal Nehru University
Supervisor: Dr. P.C. Rath   **New Delhi**
Research Intern   *August,2023-September,2023*
- Learned to use MCFold bioinformatics software to create different folded structures of lncRNA LINC-RBE and LINC-RSAS and analyzed the result under different parameters.

EXTRA-CURRICULAR ACTIVITIES AND ACHIEVEMENTS

- Currently serving as a core member of the editorial board of Catalysis, the Biochemical Society in the Department of Biochemistry of Sri Venkateswara College, University of Delhi
- Freelance writer for QnanoSol biotech company, Indian Institute of Technology (IIT), Gandhinagar
- Freelance writer for QS Top Universities
- Quarterfinalist at State level Badminton Tournament
- Coursera Courses: Supervised Machine Learning: Regression and Classification, Introduction to Statistics.
- My blog post: (https://aryanboruah100.wixsite.com/scienceblog)
- My GitHub page: (https://github.com/AryanBoruah10)

SKILLS & INTERESTS

Programming: Python (Scikit-learn, NumPy, Pandas, Matplotlib), Machine learning (classification & regression), R (Randomforest, ggplot, tidyverse, caret, dplyr), SPSS (Tukey test, Bonferroni Test, Pearson Test, ANOVA, t-test, paired-t test), Bash Scripting, Miniconda.

Lab Experience: Spectrophotometric analysis (UV and Visible) of biomolecules, Protein purification, and assays (Ammonium sulfate fractionation, SDS-PAGE, Lowry's method of protein estimation, SDH assay), Different Bioclinical assays (examples: Glucose estimation, Hemoglobin estimation), and Basic biotechnology techniques (agarose gel electrophoresis, PCR, plasmid DNA isolation).

Softwares: MAFFT, BLAST, PyMOL, SWISS-MODEL, MEGA, SPAdes, Flye, Megahit, Lucid chart.

Languages: English, Hindi, Assamese

Interests: Genetics, Statistical learning, Computational biology, Epidemiology, Public health.