Siddhi Nargund

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EDUCATION

Master of Science in Biotechnology — Baltimore, MD
Johns Hopkins University, Krieger School of Arts and Sciences — *Graduating December 2020*

- **GPA: 3.9/4.0**
- Courses: Tools for Genomic Analysis, Practical Computer Concepts for Biologists, Biostatistics, Metagenomics

Master of Science in Bioinformatics — Pune, India
Bharti Vidyapeeth Deemed University, Rajiv Gandhi Institute of IT and Biotechnology — *May 2019*

- **GPA: 3.94/4.0**
- Courses: C, Java, BioJava, Perl, BioPerl, R, Oracle, Molecular Modeling, Drug Designing, Python

Bachelor of Science in Biotechnology — Pune, India
Savitribai Phule Pune University, Fergusson College — *May 2017*

- **GPA: 3.35/4.0**
- Courses: Tissue Culture Techniques, Microbiology, Recombinant DNA Technology, Genetics and Immunology

RESEARCH EXPERIENCE

Graduate Researcher — Baltimore, MD
Johns Hopkins University, Center for Computational Genomics- Wheelan Laboratory — *July 2020 – Present*

- **Developed a Complete Composition Vector Algorithm to find Breakpoints in Cancer Genomes**
  Analyzed normal versus tumor cell genetic data to find genetic instability in cancer genome using high-dimensional Complete Composition Vector algorithm

Graduate Researcher — Baltimore, MD
Johns Hopkins University, Center for Computational Genomics - Nathans Laboratory — *July 2020 – Present*

- **Transcriptional Profiling of Hippocampal Area**
  Interpreted single nuclei sequencing data and performed statistical operations for clustering and differential expression of cells in the Hippocampal area

Graduate Researcher — Baltimore, MD
Johns Hopkins University, Center for Computational Biology- Pertea Laboratory — *October 2019 – Present*

- **ABI Development: Improving transcriptome assembly from RNA-Seq data**
  Compared reads from different sequencing techniques to analyze alignment precision and coverage of StringTie. Developed scripts to automate customized filtering reads to improve RNA-Seq pipeline and transcriptome assembly

Research Associate — Pune, India
BVDU Rajiv Gandhi Institute of IT and Biotechnology — *June 2018 – May 2019*

- **Pharmacoinformatics Approaches: Developed a New Drug to Inhibit or Kill Pathogenic Viruses**
  Performed Molecular Docking - Autodock tools, GOLD, Schrodinger, etc., Molecular Dynamics: CHARMM force field, Pharmacophore, Visualization & Energy Calculation tools
- **Study of Anti-Aging Pathways: Developed Qualitative Models to depict Pathways of Anti-Aging Importance**
  Constructed Qualitative models (Forrester Diagrams) to show pathways of anti-aging importance employing variables induced either by a genetic mutation or pharmacodynamically

Research Associate — Pune, India
Savitribai Phule Pune University, Fergusson College — *November 2015 – September 2017*

- **Observed Effects of Sound on growing Chick Embryos**
  Analyzed embryos at different developmental stages, subjected to harsh music during incubation using parameters such as height, weight, size of brain, structure of brain, length of limbs and protein levels

PROFESSIONAL EXPERIENCE

Management Trainee — Pune, India
Persistence Market Research — *September 2018 – February 2019*

- Conducted in-depth research to collect data on global markets to estimate current market size and forecast future market size, growth rate to consolidated into reports for medical devices and pharmaceuticals

SKILLS

Software: Python, MySQL, R, Matlab, Git, Perl, C, Galaxy, IGV, Microsoft Office, Oracle, Microsoft Excel, UNIX, Clod Computing
Wet lab skills: Tissue culture, PCR, ELISA, Molecular cloning, Gel Electrophoresis, Blotting Techniques, Cell Assays, Protein/DNA Purification and characterization, Plasmid Transformation

Dry lab skills: RNA-Seq Analysis, scRNA-Seq Analysis, ChIP sequencing, NGS, Gene Prediction, Structural Biology & Molecular modeling, Genomics, Proteomics, Metabolomics, Drug Designing, Statistical Modeling method, Variant Calling
Certifications: Genomic Data Science Specialization (Coursera), 2nd Prize in Poster Presentation (BVS, Pune)