

Swethasree Bhattaram

PhD Student - School of CSE @ Georgia Tech
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sbhattaram.com

RESEARCH INTERESTS

As a part of a high performance computing focused research group, my interests lie in the development of parallel algorithms for biological applications.

EDUCATION

- **Georgia Institute of Technology** Atlanta, GA
Doctor of Philosophy in Bioinformatics. Advised by Prof. Srinivas Aluru. 2023 – Present
- **Georgia Institute of Technology** Atlanta, GA
Masters of Science in Bioinformatics. Advised by Prof. Rishikesan Kamaleswaran 2021 – 2022
- **University of Illinois at Urbana-Champaign** Champaign, IL
Bachelors of Science in Bioengineering. 2017 – 2021

WORK EXPERIENCE

- **Georgia Institute of Technology** Atlanta, GA
Graduate Researcher Jan 2023 – Present
 - **Advisor:** Dr. Srinivas Aluru
 - **Work:** Parallelizing optimal transport solutions for faster analysis of genomic datasets
- **University of Maryland School of Medicine (UMDSOM)** Baltimore, MD
Bioinformatics Research Intern May 2022 - August 2022
 - **Area:** Computational Transplantation Biology.
 - **Advisor:** Prof. Valeria Mas
 - **Projects:**
 - * Conducted DNA Methylation, RNA-Seq and ATAC Seq Analysis of liver and kidney transplant tissue cells to identify patterns of genes that signal the onset of organ rejection based on gene expression levels
- **Georgia Institute of Technology** Atlanta, GA
Graduate Researcher March 2022 - Present
 - **Area:** Computational Genomics.
 - **Advisor:** Dr. Srinivas Aluru and Dr. Manoj Bhasin.
 - **Projects:**
 - * Working on developing an accurate biomarker panel to identify nonmalignant/malignant PDAC cells using multimodal single cell data – ATAC-seq and RNA-seq datasets
 - * Collaborating with researchers working on identification of early stage PDAC with radiological and histopathological images using CNNs to correlate sequencing data patterns with image identification patterns.
- **Georgia Institute of Technology** Atlanta, GA
Graduate Researcher - Masters July 2021 - December 2022
 - **Area:** Clinical Informatics.
 - **Advisor:** Dr. Rishikesan Kamaleswaran
 - **Projects:**
 - * Developing a natural language pipeline that identifies the similarities between doctors' notes, to enhance the accuracy of the the diagnosis of ARDS
 - * Identification of Sepsis Severity and Sepsis Trajectories in Patients of Diverse Groups

RELEVANT GRADUATE COURSEWORK

High perfomance computing, Artificial Intelligence, Machine Learning Biosciences, Computational Genomics, Multivariate Statistic Analysis