Swethasree Bhattaram

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Education

Georgia Institute of Technology,
Atlanta, GA: *Doctor of Philosophy: Bioinformatics, School of CSE Jan 2023 -*
Georgia Institute of Technology,
Atlanta, GA **:** *Masters of Science: Bioinformatics Aug 2021-Dec 2022*
University of Illinois at Urbana Champaign, Urbana-Champaign, IL
Bachelors of Science: Bioengineering and Minor-Computer Science Aug 2017-May 2021
Citizenship Status: US Citizen

Relevant Coursework And Skills

Coursework: High Performance Computing, AI, Machine Learning Biosciences, ML for Computational Biology, Computational Genomics, Multivariate Stat Analysis
Programming Skills: C++, Python, JAVA, Matlab, R, SQL,
Bioinformatics Tools: BLAST, BWA, Samtools, GenBank, GATK,
Machine Learning: NLTK, ScikitLearn, Pytorch, Keras

Research

Dr. Srinivas Aluru's Research Group – Graduate Researcher(PhD)
Atlanta, GA *August 2022 - Present*
-Computational algorithm development for single cell data analysis

- Focusing on parallelization of optimal transport algorithms (gromov-wasserstein, wasserstein based algorithms) for single cell multimodal integration

University of Maryland School Of Medicine - Dr. Valerie Mas
Baltimore, MD *May 2022 - August 2022*
- DNA Methylation, RNA-Seq and ATAC Seq Analysis of liver and kidney transplant tissue cells to identify onset of organ rejection based on specific gene expression markers

PDAC Biomarkers Project - Dr. Srinivas Aluru (GA Tech) and Dr. Manoj Bhasin (Emory)
Atlanta, GA *March 2022-Present*
-PDAC Biomarker Identification using ML/AI tools

- Developing an accurate biomarker panel for nonmalignant/malignant PDAC cells using and RNA Sequencing Data
- Collaborating with identification of early stage PDAC with radiological and histopathological images (CNN), and correlating sequencing data patterns with image identification patterns

Kamal Labs – Graduate Researcher(MS)
Atlanta, GA *July 2021-December 2022*
Main 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