

Avi Srivastava

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Current Research Interests

Scalable Algorithms for High Throughput Genomic Analysis
Generative Graphical Modeling for Genomic data

Education

- 2014–Present **Ph.D.**, *Stony Brook University*, Stony Brook, GPA – 3.77.
2008–2012 **Bachelor of Technology**, *College of Engineering Roorkee*, Roorkee(India), Percent – 71.76%.

Employment

- 2015–Present **Research Assistant**, *Department of Computer Science*, Stony Brook university.
2014–2015 **Teaching Assistant**, *Department of Computer Science*, Stony Brook university.
2013–2014 **Software Engineer**, *Accenture Services Pvt Ltd.*, Pune, India.

Publications

Published

- 2016 **Accurate, Fast and Lightweight Clustering of de novo Transcriptomes using Fragment Equivalence Classes**, *Accepted in Recomb-seq, In press*, arXiv, 2016.
2015 **RapMap: A Rapid, Sensitive and Accurate Tool for Mapping RNA-seq Reads to Transcriptomes**, *Accepted in ISMB-16, In press*, bioRxiv, 2015.
2014 **Texture-based medical image retrieval in compressed domain using compressive sensing**, *InderScience*, 2014 Vol.10, No.2.
2013 **GPU parallel implementation of B-spline non-rigid grid registration using free-form deformations**, *InderScience*, 2013 Vol.11, No.2.
2011 **Parallel Implementation of Compressed Sensing Algorithm on CUDA- GPU**, *International Journal of Computer Science and Information Security*, Vol. 9 No. 3.

Academic Projects

- 2014 **Approximate Importance Sampling Spherical Harmonics**, *Department of Computer Science*, Stony Brook university, Prof. Hong Qin.
2012 **Hybrid content based medical Image retrieval in compressed domain using Compressive Sensing**, *Graphic-era University*, India, Prof. Ankush Mittal.
2011 **Hybrid method for analysis of foot pressure images of Diabetic Mellitus subjects**, *Centre for BioMedical Engineering*, IIT-Delhi, Prof. Sneha Anand.

Graduate Courses

CSE541, *Logic in Computer Science*, Prof. Anita Wasilewska, A.

CSE528, *Computer Graphics*, Prof. Hong Qin, A-.

CSE537, *Artificial Intelligence*, Prof. I.V. Ramakrishnan, A-.

CSE548, *Analysis of Algorithms*, Prof. Rob Patro, A-.

CSE549, *Computational Biology*, Prof. Rob Patro, A-.

Awards and Fellowship

2014 CS Department Chair Fellowship

2012 Best undergraduate project award

Skills

Expert C/C++, CUDA, \LaTeX , MATLAB, Python

Experience BWA, BPEL, GATB, Java, OSB, Prolog, R, samtools