Arun S. Seetharam

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(a) Professional Preparation

Institute	Major	Degree, Year
University of Agricultural Sciences, Bangalore, India	Agriculture	Bachelors, 2003
University of Agricultural Sciences, Dharwar, India	Biotechnology	Masters, 2006
Indiana State University, Terre Haute, IN, United States	Biology	Doctoral, 2012
Purdue University, West Lafayette, IN, United States	Bioinformatics	Post-Doctoral, 2012-2013
Iowa State University, Ames, IA, United States	Bioinformatics	Post-Doctoral, 2014-2016

(b) Appointments

2016-present	Associate Scientist, Genome Informatics Facility, Iowa State University, IA
2014-2016	Post-doc research associate, Genome Informatics Facility, Iowa State University, IA
2012-2013	Post-doc research associate, Bioinformatics Core, Purdue University, IN
2011-2012	Adjunct Faculty, Biology department, Indiana State University, IN
2007-2011	Teaching Assistant, Biology department, Indiana State University, IN
2006-2007	Research Associate, Institute of Agri-Biotechnology, India.

(c) Products

[1] CAO, M., SEETHARAM, A. S., SEVERIN, A. J., AND SHAO, Z. Rapid isolation of centromeres from scheffersomyces stipitis. *ACS Synthetic Biology* (2017).

[2] SEETHARAM, A., BAI, Y., AND STUART, G. W. A survey of well conserved families of c2h2 zinc-finger genes in daphnia. *BMC genomics 11*, 1 (2010), 276.

[3] SEETHARAM, A., GOMEZ, A., PURCELL, C. M., HYDE, J. R., BLOOD, P. D., AND SEVERIN, A. J. Ncbi-blast programs optimization on xsede resources for sustainable aquaculture. In *Proceedings of the 2015 XSEDE Conference: Scientific Advancements Enabled by Enhanced Cyberinfrastructure* (2015), ACM, p. 4.

[4] SEETHARAM, A., AND STUART, G. W. Whole genome phylogenies for multiple drosophila species. *BMC research notes 5*, 1 (2012), 670.

[5] SEETHARAM, A., AND STUART, G. W. A study on the distribution of 37 well conserved families of c2h2 zinc finger genes in eukaryotes. *BMC genomics 14*, 1 (2013), 420.

[6] SEETHARAM, A. S., AND STUART, G. W. Whole genome phylogeny for 21 drosophila species using predicted 2b-rad fragments. *PeerJ 1* (2013), e226.

[7] XUE, C., SEETHARAM, A. S., MUSHAROVA, O., SEVERINOV, K., BROUNS, J., STAN, J., SEVERIN, A. J., AND SASHITAL, D. G. Crispr interference and priming varies with individual spacer sequences. *Nucleic acids research 43*, 22 (2015), 10831–10847.

(d) Synergistic Activities

1. Publicly available, pipeline and scripts development (https://github.com/ISUgenomics and https://github.com/aseetharam). Some examples include:

    - common_analyses: repository for most commonly used programs optimized to run on clusters
    - common_scripts: repository for simple utility scripts to efficiently run or manipulate the NGS data.
    - StampedeBLAST: Optimized NCBI-BLAST program pipeline for the XSEDE (Stampede) cluster.
    - basic_UNIX_2015: workshop materials for the basic UNIX workshop, offered during summer, 2015 at Iowa State University.

2. Publicly available tutorials for NGS analyses (http://gif.biotech.iastate.edu/Tutorial): Actively contributed for developing a comprehensive wiki pages for performing NGS data analyses. The pages include many custom pipelines as well as custom scripts that can be readily used for specific problems.

3. Guest lecturer: in the courses related to Phylogenomics/evolutionary biology (EEOB 561X, spring 2014, ENTM595 during fall 2013) and Next Generation Sequencing (GEN 349X during spring 2014).

4. Workshop instructor: Co-organized and instructed summer workshops on UNIX skills at Iowa State University. The audience included staff, faculty and various graduate students. This 4 hour crash course is conducted every year with 2 sessions during the summer months. I also instructed a one-day hands-on UNIX workshop (multiple times) for faculty and students of Purdue University (over 100 attendee's total). Developed teaching materials, data and slides for the interactive class session.

5. Co-instructor: Co-taught graduate level course in Bioinformatics (BIO487/587, fall 2012) program. Shared responsibility for preparing lectures, exams, homework assignments, and grading. Taught under-graduate level lab in Genetics (BIO382L, fall 2012) program. Full responsibility for lectures, exams, homework assignments, and grading.