**SHREYAS JOSHI**

Room 334, TH Morgan Building, University of Kentucky, Lexington, KY-40506

Email shreyas.joshi@uky.edu | Cell (859) 338-4166 | Web: www.shreyasjoshi.com

**Summary**

* Life Science PhD with strong academic track record and diverse project experience in both industry and academia in the field of neuroscience, cancer biology, bioinformatics and big data analytics.
* Biologist with 8 years of work experience involving experimental design, data analysis, teaching, mentoring and consulting.
* Published research papers and presented research at scientific conferences.

**Professional Experience**

**University of Kentucky** Aug 2011 – Present

*PhD Candidate* (GPA: 3.7/4.0; Completion Date: Apr 2017)

* **Thesis Project**: Collaborated with The Jackson Laboratory to collect sleep data in mice as part of Knockout Mouse Project (KOMP2). Analyzed mouse phenotype dataset with more than 34 million observations collected from nearly 10 thousand mice to identify novel candidate genes affecting sleep.

**Publications**: 1. Identifying candidate genes for variation in sleep related quantitative traits. (Sept 2014, BMC Bioinformatics) 2. Piezo system identifies genes influencing sleep from KOMP2 pipeline with a high hit rate. (Manuscript under preparation)

* **Business**: Worked with team at Signal solutions LLC to optimize piezoelectric sleep wake monitoring system for mice. Provided troubleshooting and experimental design support to labs using the technology. Presented the technology and novel findings at international meetings and conferences.

**Journal Article**: Increased fragmentation of sleep-wake cycles in the 5XFAD mouse model of Alzheimer’s Disease. (Published: April 2015, Journal of Neuroscience)

* **Consulting**: Conducted literature survey, provided inputs on study design, and performed data analysis for a human study conducted to assess the new air conditioning product at a major fan manufacturing company at Lexington, KY.

**Review Paper**: The importance of temperature and thermoregulation for optimal sleep. (Oct 2016, Journal of Energy and Buildings)

* **Project Management**: Conducted a study to assess the effect of meditation on performance. Authored successful grant application and IRB protocol to collect performance and EEG measures from subjects. Recruited 30 subjects and mentored and supervised 3 undergraduate students as part of the project.

**Journal Article**: EEG and Reaction Time profiling in novice meditators. (Manuscript under preparation)

* **Teaching**: Conducted practical lab courses in physiology, evolution, scientific research, and introductory biology for more than 400 students thus far composed of biology majors and non-majors.

**Advanced Center for Treatment, Education & Research in Cancer (ACTREC)** Sep 2009 – Jan 2011

*Research Assistant*

* Performed immunohistochemistry on patient tumor samples and collected expression data for cytokeratin protein biomarkers.
* Conducted data analysis to assess the prognostic value and their role as prognostic markers in human oral pre-cancer and cancer.
* **Publications:** 1. Prognostic value of tissue polypeptide antigen in oral squamous cell carcinoma. (Feb 2011, Oral Oncology) 2. Prognostic role of Oct4, CD44 and c-Myc in radio-chemo-resistant oral cancer patients and their tumourigenic potential in immunodeficient mice. (Apr 2015, Clinical Oral Investigations)

**HiMedia Laboratories Pvt. Ltd**. Aug 2008 – Aug 2009

*Cell Culture Analyst*

* Tested cell culture media for plating efficiency and helped to develop and test skin culture media.

**Education**

PhD Candidate in Biology, University of Kentucky, USA Aug, 2011 – Present

MSc Bioinformatics, Nottingham Trent University, UK June, 2008

BSc Microbiology, Barkatullah University, India June, 2006

**Skills**

*Software:* Microsoft Office, JMP, SPSS, and Endnote; familiar with JMP Genomics and Tableau

*Programming:* Proficient in R and Perl; familiar with Python and Matlab

*Big Data:* HPC, Unix, Amazon EC2, Hadoop

*Lab:* NGS, RNA-Seq, Microarray, Cell Culture, Immunohistochemistry, RT-PCR, Behavioral Assays

*Relevant Coursework:* Biostatistics, Bioinformatics, Genomics, Programming, Correlation and Regression, Statistical Genetics, Multivariate Methods, Biometry, Machine Learning, Medical Informatics

**Awards**

* Ribble Mini Grant Competition (2014, 2016), University of Kentucky
* JAX Scholarship for Systems Genetics training, The Jackson Laboratory
* Martin Striz Travel Award, Signal Solutions LLC
* International Student Ambassador, Nottingham Trent University

**Certifications**

* Graduate Certificate in Applied Statistics (GCAS), University of Kentucky
* Systems Genetics, The Jackson Laboratory
* Springboard Certification in Foundations of Data Science (in progress)
* Linux Essentials and System Administration (RH033, RH133), Red Hat Inc.

**Professional Memberships**

* Society for Neuroscience (SfN)
* International Behavioral and Neural Genetics Society (IBANGS)
* Complex Trait Community
* Bluegrass Chapter of the Society for Neuroscience (BGSfN)