PRASHANT KUMAR KUNTALA

State College, Pennsylvania pxk284@psu.edu

EDUCATION

Aug 2015 – Dec 2017 **Master's in Computer Science** **Ohio University, Athens, OH**
- Thesis: *Optimizing Biomarkers From an Ensemble Learning Pipeline*
- Research focus: *Bioinformatics, Machine Learning, Ensemble Motif Discovery*
- Advisors: *Dr. Frank Drews and Dr. Lonnie Welch*

Aug 2015 – Dec 2017 **Graduate Certificate in Bioinformatics** **Ohio University, Athens, OH**
- *Computational Genomics, Biostatistics, Molecular Biology.*
- *Design & Development of Bioinformatic tools*

Jul 2011 – May 2015 **Bachelor's in Computer Science** **JNTU, Hyderabad, India**
- Capstone Project: *Developed a Content Management System enabling multiple users to create, read, update & share topic oriented blogs.*

RESEARCH EXPERIENCE

Jan 2018
current position
Dr. Frank Pugh's Lab

Computational Scientist **Pennsylvania State University, University Park, PA**
- Design & development of bioinformatic projects.
- Building Galaxy science gateways to analyze ChIP-exo, ChIP-seq data.
- Docker Containerization, Developing webservices & genomic databases.

Aug 2017 – Dec 2017 **Bioinformatics Engineer** **Ohio University, Athens, OH**
- Extending ensemble motif discovery & selection pipelines.
- Project Collaborations and TF-binding prediction competition.

Aug 2015 – Aug 2017 **Graduate Research Assistant** **Ohio University, Athens, OH**
- Develop models and tools to analyze CHIP-seq, RNA-seq & PBM data.
- Conduct programming sessions for (BME) graduate students.
- Assisting in coursework and grading for CS4170 & BME5170

Jun 2014 – Aug 2014 **Software Developer Intern** **EduKinect, Hyderabad, India**
- Designed and developed a chat application for Windows (UWA) using Azure Mobile Services, supporting push notifications & chat history.

TECHNICAL SKILLS

- **Bioinformatics:** *Galaxy Administration & End-to-end pipeline development, Bioconda, Motif analysis, Custom data visualizations & Machine Learning.*
- **Web Development:** *React, NodeJS, ExpressJS, HTML5, CSS3, PHP, D3*
- **Progamming Languages:** *Python, R, C, C++, Java, Shell / BASH*
- **Databases:** *MySQL, MongoDB*; **Version Control:** *git, GitHub*
- **Open source contributions:** *galaxyproject/tools-iuc, bioconda/bioconda-recipes*
- **DevOps:** *Docker, DockerHub, Ansible*
- **Platforms:** *Linux, Mac and Windows.*

PUBLICATIONS

1. **"High resolution protein architecture of a eukaryotic genome"**

   Matthew J. Rossi, *Prashant K. Kuntala*, William K.M. Lai, Guray Kuzu, Naomi Yamada, Nitika Badjatia, Chitvan Mittal, Kylie Bocklund, Nina Farrell, Joshua D. Mairose, Thomas R. Blanda, Kate S. Mistretta, David J. Rocco, Emily S. Perkinson, Gretta D. Kellogg, Shaun Mahony and B. Franklin Pugh. *Center for Eukaryotic Gene Regulation, Department of Biochemistry and Molecular Biology, The Pennsylvania State University, University Park, PA* **(Under Review - Nature)**

2. **"ChExMix: A Method for Identifying and Classifying Protein–DNA Interaction Subtypes"**

   Naomi Yamada, *Prashant K. Kuntala*, B. Franklin Pugh and Shaun Mahony. *Center for Eukaryotic Gene Regulation, Department of Biochemistry and Molecular Biology, Pennsylvania State University, University Park, PA* **(doi:10.1089/cmb.2019.0466)**

3. **"Large-scale evaluation of renewable monoclonal antibodies by ChIP-exo"**

   William KM Lai, Thomas R Blanda, Kylie Bocklund, *Prashant K. Kuntala*, Josh Mairose, Sarah Dweikat, Kate Mistretta, B. Franklin Pugh. *Center for Eukaryotic Gene Regulation, Department of Biochemistry and Molecular Biology, The Pennsylvania State University, University Park, PA* **(manuscript in preparation)**

PROFESSIONAL ACTIVITIES

Poster presentations

1. **"Yeast Epigenome Project: Comprehensive Genomic Binding of *S.cerevisiae* Proteins"** Aug 2019
   Chromatin & Epigenetic regulation of transcription: The 38th Summer Symposium in Molecular Biology, The Pennsylvania State University, University Park, PA

2. **"Yeast Epigenome Project: Comprehensive Genomic Binding of *S.cerevisiae* Proteins"** Oct 2018
   The Center for Eukaryotic Gene Regulation Retreat, The Pennsylvania State University, University Park, PA

3. **"Gene regulation in Chagas Disease"** May 2016
   The GLBIO/CCBC Great Lakes Bioinformatics and the Canadian Computational Biology Conference, University of Toronto, Canada.

Talks & Mentoring

1. **Biostars Bootcamp at The Pennsylvania State University** Jun 2018,2019
   Given a talk with hands-on training in "Using GitHub for group projects"

2. **Web frontend & backend application development** Summer 2018,2019
   mentored Junior & Senior undergrads at Center for Eukaryotic Gene Regulation.

Certifications

1. **Using XSEDE HPC for BigData & Machine Learning** Sep 2018
2. **Cyber Security expert (level 1), Virscent Technologies Pvt.Ltd., India.** Jun 2014
3. **IBM DB2 Academic Associate: DB2 databases and application fundamentals.** May 2014
4. **Aakash Android Application programming, IIT Bombay, India.** Feb 2013
5. **Universal Windows App developer, (published 8 apps in windows marketplace)** 2013 – 2014
6. **Diploma in Core Java, CMTES Informatics Ltd.** May 2011

References : *Available Upon Request*