# PRASHANT KUMAR KUNTALA

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## 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 Wordpress style 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** **Penn State University, PA (&) Cornell University, NY**
- Design & development of large-scale 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 Transcription Factor binding prediction.

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, Motif analysis, Data Mining & Data visualizations, Bioconda, Machine Learning.*
- **Web Development:** *ReactJS, NodeJS, ExpressJS, HTML5, CSS3, JS, PHP, D3*
- **Progamming Languages:** *Python, R, C, C++, Java, Shell / BASH*
- **Databases:** *MySQL, MongoDB*; **Version Control:** *git, GitHub*
- **DevOps:** *Docker, DockerHub, Ansible*; **Platforms:** *Linux, Mac and Windows.*
- **Open source contributions:** *galaxyproject/tools-iuc, bioconda/bioconda-recipes*

## RESEARCH

*Publications*

1. **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)**

*Preprints*

1. **Stencil: A web templating engine for visualizing and sharing life science datasets**
   *Prashant K. Kuntala*, B. Franklin Pugh, William KM. Lai.

2. **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.

3. **Screening of PCRP transcription factor antibodies in biochemical assays.**

   William K. M. Lai, Luca Mariani, Gerson Rothschild, Edwin R. Smith, Bryan J. Venters, Thomas R. Blanda, *Prashant K. Kuntala*, Kylie Bocklund, Joshua Mairose, Sarah N Dweikat, Katelyn Mistretta, Matthew J. Rossi, Daniela James, James T. Anderson, Sabrina K. Phanor, Wanwei Zhang, Avani P. Shaw, Katherine Novitzky, Eileen McAnarney, Michael-C. Keogh, Ali Shilatifard, Uttiya Basu, Martha L. Bulyk, B. Franklin Pugh **(doi: 10.1101/2020.06.08.140046)**

## 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: High resolution protein architecture of a eukaryotic genome** 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 Great Lakes Bioinformatics and the Canadian Computational Biology Conference, U. 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. **Diploma in Core Java, CMTES Informatics Ltd.** May 2011

**References :** *Available Upon Request* *last updated on Nov 3, 2020*