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Objective

Seeking a doctoral position in bioinformatics will allow me to expand my knowledge and contribute to the field through cutting-edge research. With this strong passion towards bioinformatics will challenge and inspire me to reach new heights in my research and studies.

Profile

Masters in Bioinformatics and also carry two years of experience in developing, implementing computational techniques for analyzing biological data to facilitate the results. I am proficient in programming with Python and R, and have a good understanding of bioinformatics tools. Staying current by attending the conferences, workshops and presenting papers on new technologies, research findings, and improvements in field of bioinformatics.

Education

2018 – 2020 Manipal Academy of Higher Education
Karnataka, India
Masters in Bioinformatics

2015 – 2018 Osmania University
Telangana, INDIA
*Bachelors of Science in Mathematics,
Electronics & Computer Science*

Master Thesis

Title: *Initiation of a lung adenocarcinoma cartography around TP53 activity.*
Place: Institute for Advanced Biosciences (IAB)
Supervisor: Dr. Cyril Boyault

This study is the comprehension of signaling fluxes with an integration of OMICS data to reveal the novel biomarkers and drug targets for better prognosis of Non-small cell lung adenocarcinomas.

Publications

- I. Veerendra P Gadekar, **Pranav Swaroop G.** "A comprehensive analysis of mRNA expression profiles of Esophageal Squamous Cell Carcinoma reveals downregulation of Desmoglein 1 and crucial genomic targets." *Disease Markers* (2023) [Under Review]
- II. Veerendra P Gadekar, **Pranav Swaroop G.** "Population inference and analysis of mRNA expression profiles of Esophageal Squamous Cell Carcinoma reveal novel and discordant genes perturbation" (2023) [Forthcoming]

Professional Experience

Plantik Biosciences | November 2020 - Present

- Worked with cloud architecture to design and implement new plant-breeding techniques using Python/R.
- Applied biostatistics and bioinformatics algorithms to integrate multiple levels of biological information with functional genomic data for hypothesis generation, target identification, and prioritization.
- Communicated effectively in writing and orally.
- Collaborated across disciplines and contributed to various projects outside the organization.

Project Experience:

Mbiomics LLC | February 2022 - December 2022

- Collaborated work on identifying novel biomarkers for the study of "Identification of mRNA signatures involved in Esophageal Squamous Cell Carcinoma (ESCC) risk and assessment of their impact on perturbation of signaling pathways."
- Conducted original research and contributed significant findings.

Skills

Programming:

Python, R, Julia, MATLAB, Bash, Perl & Docker.

Cloud Platforms:

Google Cloud Platform, Azure & AWS.

Operating Systems:

Linux/Unix, Windows, & macOS.

Bioinformatics:

NGS Analysis, Sequence Alignments & Phylogenetics, Functional genomics and annotations, Image processing for plant phenotyping, Building pipelines with gcr.io, Nextflow and Docker, visualizations in R/Python, Designing web apps with Python/R Shiny

Summer Schools

- ❖ Selected for the **Precision Oncology School** at the European Scientific Institute in Geneva, Switzerland, where I completed 60 hours of lectures, practicals, and coaching on business innovation projects. As part of a team of 8, I helped develop a business proposal for a "Liquid Biopsy sampling kit to detect Head & Neck Squamous Cell Carcinoma (HNSCC)" using a less painful and invasive product. The goal of the project was to generate long-term profits and create a large database integrating clinical and genomic data.
- ❖ Selected for the **Computational Medicine School** at the European Scientific Institute in Geneva, Switzerland during the Fall Semester, where I designed a prototype "Graphene-based biosensor for the differentiation of COPD and Asthma" as part of a 10-day intensive project with a team.

Workshops

- ❖ Attended the workshop on "Basics in OMICS technologies and Bioinformatics for research and clinical applications" conducted by CRG Training Unit from May 31st to June 10th **2021**.
- ❖ Attended the G2P-SOL workshop on "Multi-OMICS management of plant genetic resources" conducted by Phenome Networks & G2P – SOL from December 13th to December 15th **2021**.

Conferences

- ❖ Presented a paper entitled "Identification of mRNA signatures involved in Esophageal Squamous Cell Carcinoma (ESCC) risk and assessment of their impact on perturbation of signaling pathways" in 46th Annual Meeting of Indian Society of Human Genetics (April **2022**) at Manipal School of Life Sciences, MAHE, Manipal.
- ❖ Presented a poster entitled "Medial septal GABAergic projection neurons promote object exploration behavior and type 2 theta rhythm" on occasion of National Science Day (SOLSNS **2018**) at Manipal School of Life Sciences, MAHE, Manipal, Karnataka, India.
- ❖ Presented a paper entitled "Autonomous Line following Robot and its uses in Self-driving cars" in International Journal of Advanced Research in Science and Engineering (BVCNSCS **2017**) at Bhavans Degree College, Hyderabad, Telangana, India.
- ❖ Presented a paper entitled "Life Saving systems in Indian Railways" in International Journal of Advanced Research in Science and Engineering (BVCNSCS **2017**) at Bhavans Degree College, Hyderabad, Telangana, India.

Teaching

- 2021 Private Tutor** for matriculation students in course of *Mathematics*.
- 2019 Teaching assistant** for bachelor students in the course *Command-line tools for genomics data with R programming*.
- 2015,2016 Outreach Tutor** during Volunteer work during bachelors degree where I taught the children about *Fundamentals of MS-Office*.
- 2014 Instructor** for ~40 participants during two weeks in the popular *Workshop on Arduino (IOT)*, during my bachelors degree.

Community

- ❖ BIOinformatics CLUB for Experimenting Scientists (BIOCLUES), India.
- ❖ Indian Society of Human Genetics (ISHG), India.
- ❖ International Society for computational Biology (iSCB), India.

Achievements

- ❖ Earned a scholarship from IDEX & UGA Foundation for M2 degree program.
- ❖ Secured 1st position in Hackathon conducted by Congrès National Des Pharmaciens, Bordeaux, France.

Certifications

1. **Introduction to Julia (for programmers)** | Julia Academy | Verify [here](#)
2. **Python for Data Science and AI** | Coursera | Verify [here](#)
3. **Detecting COVID-19 with Chest X-Ray using PyTorch** | Coursera | Verify [here](#)
4. **Getting and Cleaning Data** | Coursera | Verify [here](#)
5. **Google Cloud Product Fundamentals** | Coursera | Verify [here](#)
6. **AWS: Publish a Nodejs Website from Scratch** | Coursera | Verify [here](#)
7. **Bioinformatics Methods - I** | Coursera | Verify [here](#)
8. **Command Line tools for Genomic Data Science** | Coursera | Verify [here](#)
9. **Python for Absolute beginners** | Udemy | Verify [here](#)