Vikhram Ravi

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Profiles

Vikhram Ravi

Summary

An aspiring biotechnologist with a robust foundation in bioinformatics and molecular biology, I try to diversify my skills to adapt to all fields rather than knowing only what I do. My expertise includes CADD in Bioinformatics, Statistical media optimization techniques, Molecular Biology Techniques. I am also skilled in fluid dynamics, particularly for biogas output calculations. Trained in Business Intelligence techniques enabling me to interpret data swiftly. This interdisciplinary versatility allows me to collaborate effectively across various departments, leveraging resources to their fullest potential.

Experience

Sri Projects — February 2024 - July 2024
Intern — On-Site

- Biogas Yield of Various substrates, VBA macros involving various conditions / real time scenarios from field data.
- Biogas Output Mass Balance Calculations for Biogas plants.
- AFT Fathom for fluid dynamics analysis in Biogas plants.
- Stress Analysis for Bio-related plants using CAESAR II

NyBerMan Bioinformatics — January 2023 - March 2023
Intern — Remote

- Understanding on the genes involving Breast Cancer
- Utilizing COSMIC database to obtain datasets on various gene mutations
- Molecular docking of suitable drug candidates to find affinity of the drugs to be effective against the mutation.

Education

University of Arizona — December 2024 - Present
Immunobiology — Master of Science
4 GPA

Amrita School of Nanosciences and Molecular Medicine — August 2024 - Present
Nanobiotechnology — Master of Technology
9.25 SGPA

Saveetha School of Engineering — July 2020 - June 2024
Biotechnology — Bachelor of Technology
9.006 CGPA

Graduated First Class with Distinction

National Institute of Open Schooling — May 2018 - April 2020
78.6% — Senior Secondary

Subjects : Biology, Physics, Chemistry, Computer Science, Psychology, Data Entry Operations, English

Vikhe Patil Memorial School — May 2017 - May 2018
6.72 CGPA — Secondary

Awards

Student Topper — November 2022
SIMATS University

1. Securing 95 Percentile in overall University Examinations.
2. First Mark in Plant Biotechnology & Molecular Biology.

Cultural Fest — May 2022
SIMATS University

1. Received 1st Place in Quiz (Non-Technical) of SIMAM-2022.
2. Received 1st Place in Chess of SIMAM-2022.

Chess Nationals — November 2014
CBSE

Received 2nd Runner up in the CBSE National Chess Championship.

Chess Zonals — October 2014
CBSE

Obtained 1st Runner Up in the South Zone CBSE Chess Championship.

Certifications

Fundamentals in Biotechnology and Genetics — June 2024
Alison

Google Business Intelligence — April 2024
Google Career Certificates - Coursera

Obtained the Professional Certificate by completing the three courses

1. Foundations of Business Intelligence
2. The Path to Insights: Data Models and Pipelines
3. Decisions, Decisions: Dashboards and Reports

Drug Discovery — March 2024
UC San Diego - Coursera

The phases in the development of drug, parameters involved in bringing a drug from the laboratory to the market.

Introduction to the Biology of Cancer — March 2024
Johns Hopkins University - Coursera

Obtained the certificate with Honors by completing the optional course on Introduction to Liver Cancer.

Drug Delivery: Principles and Engineering — October 2022
IISc Bangalore - NPTEL

12 Week NPTEL Online course, completed with a proctored exam.

Projects

Examining the Toxic effects of Camphene Conjugated with Zinc Oxide Nanoparticles on Zebrafish Larvae — July 2023 - March 2024

1. Developmental Toxicity Studies in Zebrafish *in-vivo* model.
2. Neurotoxicity analysis by using locomotory parameter.
3. Effects on ROS Enhancement Levels using GPx and GST parameters.
4. Lipid Peroxidation level analysis using DCFH-DA staining fluorescent Assay.

Ammo Mist — October 2023 - March 2024
Ammonia sensor for Aquariums

Developed an module for detecting dissolved ammonia in Aquariums and used an IoT module to transmit the data to connected devices, This setup is different from the conventional electrode based ammonia detection.
Received Institutional Patent for the invention.

Clin Mist — July 2022 - December 2022
Natural Surface Disinfectant

A novel surface disinfectant utilizing the antimicrobial properties of terpinen-4-ol extracted from Green tea was utilized instead of the conventional sodium hypochlorite.
The product received institutional patent.

Publications

Investigating the Protective Effect of Camphene-Conjugated Zinc Oxide Nanoparticles Against Pseudomonas aeruginosa Infection in Danio rerio — September 2024
Springer - BioNanoScience

https://link.springer.com/article/10.1007/s12668-024-01561-3

Investigating the potential of CAM-ZnO NPs as a treatment for *Pseudomonas Aeruginosa* infections.

Conference

International Conference on Science — April 2024
Presented a paper titled

Evaluating the Pharmacological Profile of Novel Drug Camphene conjugated with Zinc Oxide Nanoparticles using Zebrafish Larvae model

Technical Skills

Bioinformatics
●●●●○
CADD, Molecular Docking, PyMol, Linux, DSV

Genetics
●●●●○
Plant Biotechnology, Cancer

Molecular Biology
●●●●○
Developmental Toxicity, Assays, PCR

Bioprocess
●●●●●
Downstream Processing, Mass Balance, Biogas

Soft Skills

Conflict Resolution

Time Management

Flexible & Adaptive

Listening