






## SWACHANDRIKA RUDRA

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 <https://srthecoder.github.io/SRudra-portfolio/>

## EDUCATION

**DY Patil School of Biotechnology and Bioinformatics, Navi Mumbai**

**2019 - 2023**

**Btech. Bioinformatics and Data Science**

**CGPA: 3.91/ 4**

- Ranked 1<sup>st</sup> in semesters II, III, IV, V, VI, Ranked 2<sup>nd</sup> in semester I
- Recipient of rank holder's scholarship for all semesters.

## TECHNICAL COMPETENCY

- **Programming Languages**
  - Java (core and advanced), Python, R, C, MATLAB, HTML, Javascript, PHP, CSS, MySQL
- **Bioinformatics Tools**
  - GROMACS, AutoDock, ArgusLab, COPASI, ChemSketch, Vensim, CellDesigner, Tinker Cell, Cytoscape, SBW
- **Others**
  - SPSS (Statistical analysis),
  - Microsoft Office: Word, PowerPoint, Excel
- **Operating Systems**
  - Windows
  - Ubuntu

## INTERNSHIP

**Ernst & Young Global Consulting Services – Mumbai, India**

**Dec 2021 - Feb 2022**

**Robotic Process Automation Intern**

*Tax Technology Department*

- Worked on web automation projects to help enhance and automate tax and transaction services.
- Developed a python model that efficiently extracts thousand records of employee data from excel sheets and fills various online forms.
- Learnt about automating excel sheet data filling and extraction, web-form filling using python.

## RESEARCH EXPERIENCE & ACADEMIC PROJECTS

### **Dissertation Project**

*December 2022 onwards (6 months)*

- Acquired a position as research intern at ACTREC for final year project.

**Organization:** The Advanced Centre for Treatment, Research and Education in Cancer (ACTREC)

**Mentor:** Dr. Prasanna Venkatraman, Principal Investigator, and a director at ACTREC

### **Startup Innovation Project: Neur-On**

*October 2022 – Ongoing*

- Working in a team of 2 in affiliation with DY Patil School of Management, Nerul.
- The project aims towards identifying top ayurvedic compounds from Ashwagandha and their properties that play a crucial role in detangling the repeat regions of tau, a protein primarily responsible for the onset of Alzheimer's disease in humans. The goal of the start-up is to market and deliver these compounds via nutraceuticals to consumers.

## **Zebrafish Informatics Review Paper: ELSEVIER**

*October 2022 – Ongoing*

- Currently the first co-author in a team of 4 for the review article to be published by Elsevier.
- Aiming to summarize the importance of zebrafish in drug development and delving further into it's unique properties that make it a model organism for clinical trials. Providing unique statistics and analysis of current research data available on zebrafish.

## **Prediction of Diabetes Type 2 using Logistic Regression**

*Feb 2022 – Apr 2022*

- Lead a team of three members and worked as lead programmer.
- Developed a predictive AI-based model in python utilizing machine learning algorithm of logistic regression.
- The patient diabetes dataset of a local hospital was used to train and test the model.
- The prediction accuracy score of the model was found to be 75% on a dataset with only 200 patient records.

## **Web Development Projects**

*April 2021 - Sep 2021*

- Created a static website using HTML and CSS, resembling the official Stanford University website with five pages of interlinking.
- Created a mock student portal web form asking for student details using form actions and displaying information on another page using php and cgi python, and utilized mysql to store the information in a local database.
- Developed a web page for BMI Calculator giving various choices & options to users and a webpage for area calculation of multiple 2D and 3D shapes as per user preference using cgi python.
- Developed a webpage for a departmental store to take client information and utilizes cgi python to calculate cost and stores the information in a local database.

## **ACHIEVEMENTS**

- **Student Council: Scientific Secretary** *Aug 2021 - Sep 2022*  
*DY Patil University, Mumbai*
  - Responsibilities included organizing and overseeing the college Tech fest 'Technoczar.'
  - Strategized and conducted workshops and seminars for professional and academic enrichment of students. Served as a student academic guide and mentor.
  - Instagram handle: @technoczar2022
  - <https://instagram.com/technoczar2022?igshid=YmMyMTA2M2Y=>
- **Topper of Bioinformatics Department for all 6 semesters.** *Nov 2019 – June 2022*
- **Class Representative** *June 2019 – Mar 2021*
  - Acted as the class's main liaison between students and faculty and department.

## **ACTIVITIES / WORKSHOPS**

- **App Development Workshop** *March 2022*
  - Organized the technical workshop for College Tech fest 'Technoczar'
- **Building a face recognition Application using Python Workshop - GUVI** *April 2021*
- **AI-for-India 1.0 - The Guinness World Record Winning Event - GUVI** *April 2021*
  - Broke the Record for most users taking an online computer programming lesson in 24 Hrs.
- **Yearly donations of books, clothes and stationery to local mobile creches and orphanages.**



## ADDITIONAL COURSES

- **Data Base Management System** *August 2022*  
Issued by NPTEL, IIT Kharagpur.
  - Learnt about data structures, file organizations, concepts and principles of DBMS's, data analysis, database design, data modeling, database management, data & query optimization, and database implementation.
  - [https://onlinecourses.nptel.ac.in/noc22\\_cs91/preview](https://onlinecourses.nptel.ac.in/noc22_cs91/preview)
- **Design, Technology And Innovation** *April 2022*  
Issued by NPTEL, IIT Bombay.
  - Learnt about the stages of innovation, collaborative Innovation Methods and case studies.
  - [https://onlinecourses.swayam2.ac.in/aic20\\_ed02/preview](https://onlinecourses.swayam2.ac.in/aic20_ed02/preview)
- **Programming, Data Structures And Algorithms Using Python** *April 2021*  
Issued by NPTEL, IIT Madras.
  - Learnt about the basic concepts, used searching and sorting algorithms, dynamic programming, backtracking, exception handling and files. Worked with data structures, classes and objects.
  - [https://onlinecourses.nptel.ac.in/noc22\\_cs26/preview](https://onlinecourses.nptel.ac.in/noc22_cs26/preview)
- **Data Science: Probability** *Sep 2020*  
Issued by HarvardX & DataCamp
  - Learnt about the important concepts in probability, Monte Carlo simulations, expected values and standard errors and computing them in R, and Central Limit Theorem.
  - <https://www.edx.org/course/data-science-probability>
- **Introduction To Personal Branding** *July 2020*  
Issued by University of Virginia | Coursera
  - Understood the importance of personal branding and inhabiting a brand, establishing social media presence, creating a mission statement.
  - <https://www.coursera.org/learn/personal-branding>
- **Data Science Visualization** *June 2020*  
Issued by HarvardX & DataCamp
  - Learnt about the data visualization principles, communicating data-driven findings, using ggplot2 to create custom plots.
  - <https://www.edx.org/course/data-science-visualization>
- **Heartfulness Meditation Training Program** *June 2020*  
Issued by Heartful Campus Heartfulness
- **Data Science R basics** *April 2020*  
Issued by HarvardX & DataCamp
  - Learnt the basic R syntax, and foundational R programming concepts, performed data wrangling using dplyr, and generated plots.
  - <https://www.edx.org/course/data-science-r-basics>