

Rishabh Pandey

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EDUCATION

Northeastern University, Boston, MA Master of Science in Bioinformatics Area of Interest: Data Science/Data Analytics/DevOps/Software	Dec 2024 (Expected) GPA: 3.7
Ramaiah University of Applied Sciences, Bangalore, India Bachelor Of Science Biotechnology (Hons)	Aug 2021 GPA: 3.7

SKILLS

Data Science and ML:	Seaborn, Matplotlib, Sklearn, TensorFlow, Keras, Jupyter, Numpy, Pandas
Computer Science:	Full Stack Dev, Cloud Native Ops, Kubernetes, Linux, Docker, LXC/LXD
Languages:	Python, JavaScript, SQL, C, Bash, R, MATLAB, (S)CSS, HTML5
Bioinformatics Tools:	Trimmomatic, GSNAP, BLAST, SAM tools, Trinity, BLAST
Soft Skill:	Leadership, Critical thinking, Public speaking, Problem-solving, Project management
Lab Skills:	Biosafety (L2), Gelelectrophoresis, PCR, MTT, Immunological Assays, Tissue culture

EXPERIENCE

Intern – Harvard Medical School – Mass General Hospital, Boston, MA <i>Developer: - Python</i>	June 2023 – Aug 2023
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- Developed a script with MD5 hash algorithm for efficient server cleanup and storage optimization
- Spearheaded the integration of LXC/LXD as a container management system to streamline application deployments and ensure resource isolation
- Implemented Rancher, a powerful Kubernetes management platform
- Facilitated multi-cluster deployments, and monitoring, enhancing the overall cluster administration experience

Computational Drug Discovery with Neural Networking using QSAR modelling, Bangalore, India <i>Full Stack Developer: Python</i>	May 2021 – Jul 2021
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- Leveraged AI to predict Acetylcholinesterase activity holds immense potential for the treatment of Alzheimer's disease, with the aim to revolutionize the field.
- Developed a ChEMBL database-powered web app that predicts the bioactivity of target molecules by applying Deep Neural Network and Quantitative Structure-Activity Relationship (QSAR) modeling.
- Harnessed Canonical SMILES notations to calculate Lipinski descriptors, which are critical in evaluating the drug likeness of compounds based on their pharmacokinetic profile, including absorption, distribution, metabolism, and excretion
- [GitHub link for the project](#)

CF-CAP (Computational Flu or COVID-19 Anticipator and Prescriber), Raipur/Bangalore, India <i>Data Scientist, Front End Developer: Python, JavaScript</i>	Oct 2020 – April 2021
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- Revolutionizing the way we detect and manage the initial symptoms as the first line of defense against COVID-19, CF-CAP
- Leveraged the power of X-ray imaging and Convolutional Neural Network (CNN) models to design a web-app that accurately predicts the presence of COVID-19 in the lungs
- Impressive on-paper accuracy of 90%, our CF-CAP model was trained with over 16,000 image samples using VGG16 architecture and optimized with 50 epoch cycles
- Impact of our work was further highlighted in a national newspaper, "Patrika," where it was featured under the national news section, reinforcing its significance in the fight against COVID-19
- [GitHub link for the project](#), [Link for the article](#)

SEMINAR AND WORKSHOPS

Application of computational tools in drug discovery, Bangalore, India <i>Seminar</i>	July 2019
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- Learned about Data Visualization and processing data and how ML/AI can be used when it comes to prediction of a drug and drug likeness of a compound