

CURRICULUM VITAE

MANISH KUMAR

chemicbook.com

Email : sihagmanish36@gmail.com

Mobile : +91 9167856885

SUMMARY

A data science professional at the intersection of natural sciences and technology aspiring to develop expertise in Natural Language Processing and Computer Vision to further the application of in-silico modelling in accelerating Biopharma R&D

EDUCATION

Indian Institute of Technology, Bombay

[July'14 – July'18]

Bachelor of Technology in Chemical Engineering

TECHNICAL SKILLS

Programming languages	Python, SQL, JavaScript, HTML, CSS, GraphQL, Bash	3 years+
Familiar with	R, Java, C, C++, Octave, MATLAB, NWChem	1-3 projects
Tools & OS	Kubernetes, Postgres, Neo4j, Docker, Linux, Git, Jupyter, Airflow, VMs	3 years+
Libraries	Tensorflow, Keras, RdKit, ReactJS, Sklearn, Pandas, NumPy	3 years+
Others	Data Science, Machine Learning, Deep Learning, Neural Networks, NLP, RNN	3 years+

EXPERIENCE

Data Scientist, Aganitha Cognitive Solutions, Hyderabad

[Sep'18 – Present]

Drug Solubility Prediction

- Trained Machine Learning models to classify new molecules into low, medium, and high solubilities and is currently helping real-world scientists in saving months of experimentations and lab expenditures
- Trained deep learning models to predict quantum descriptors of chemical molecules reducing the computational cost by 99.9%
- Designed a standardized database schema that can efficiently store lab experimental results and molecular descriptors
- Managed and trained a team of freshers by writing tutorials, blog posts, quizzes, and collating study materials

Suzuki Reaction Yield Prediction

- Trained deep learning models to identify low yielding reactions and helped the client in a 30% reduction of lab expenditure
- Developed a Jupyter notebook-based app that helps users in visualizing chemical reactions and molecular structures
- Developed a webapp to interactively train new models for the ease of lab scientists from non-technical backgrounds
- Built an Airflow based framework to visually monitor the progress of the data pre-processing ETL pipeline in real-time

Research Publication Browser | [COVID-19](#), [Rare Diseases](#), [Cancer](#)

- Created a program that can search the internet and fetch the latest publications related to any disease
- Built a ReactJS based website with neo4j as the backend that can efficiently search millions of research papers in real-time
- Developed a master data management pipeline for disambiguating organization names, author names, and their affiliations

Email Request Analysis

- Developed RNN models to classify customer inquiries into 70+ categories saving 6 hours/day spent in manual classification
- Improved customer experience by automatically assigning ticket numbers to their queries and reducing the waiting time from 2 days to 5 minutes

In-Silico Antibody Engineering

- Created a pipeline that can combine both Homology Modelling and deep learning approach to predict the structure of an antibody, a step towards saving months of experimentation in the lab

Machine Learning Intern, Eli Research India, Faridabad

[May'17 – July'17]

Chatbot, a QA chatbot to answer common and repetitive queries by customers

- Carried experiments using RNNs and GRUs to suggest full sentences when a user starts typing
- Helped the company in reducing the number of customer calls by 10% by setting up a QA chatbot

RELEVANT COURSES

- Deep Learning Specialization, *deeplearning.ai, Coursera, Aug'17 – Feb'18* [[Certificate](#)][[Certificate](#)][[Certificate](#)]
 - Natural Language Processing, *Stanford University, YouTube, May'17 – Jun'17*
 - Machine Learning, *Stanford University, Coursera, Mar'17 – Jun'17*
 - The Data Analytics Edge, *MITx Courseware, edX, Jan'17 – Feb'17*
 - Algorithms, *University of California, San Diego, Coursera, Dec'16 – Jan'17* [[Certificate](#)]
 - R Programming, *Johns Hopkins University, Coursera, Aug'16 – Sep'16* [[Certificate](#)]
 - Introduction to Computer Science, *Harvard, edX, Jul'16 – Nov'16*
 - Introduction to C++, *IIT Bombay, On Campus, Aug'14 – Nov'14*
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EXTRA-CURRICULAR ACTIVITIES

- Volunteered for an education camp for village school children organized by Group for Rural Activities (GRA)
- Educated underprivileged children about potential opportunities in their future as part of the camp
- Key event organizer in Asia's largest college cultural festival Mood Indigo
- Organized and executed five cultural competitions for over 500 participants from all over the world
- Won a Gold Medal in Kho-Kho College General Championship
- Awardee for building best Remote-Controlled model airplane as part of Aeromodelling club, IIT Bombay