

SONAAL PATHLAI PRADEEP

(+91) 81369 81312 ♦ Kerala, India

sonaalpradeep@gmail.com ♦ <https://www.linkedin.com/in/sonaalpradeep>

EDUCATION

B.Tech, National Institute of Technology, Calicut (NITC) Calicut, India
Computer Science and Engineering CGPA : 8.13/10

Senior Secondary, Vijayagiri Public School Thrissur, India
CBSE Board 89.3%

Secondary, OOEHS - Boys Branch Sharjah, UAE
CBSE Board 89.3%

SKILLS

Programming Language	Java, Python, C++, C, SQL, JavaScript, HTML, CSS, R
Machine Learning Frameworks	Scikit-Learn, Tensorflow(Keras), PyTorch
Other Tools	Git, GitHub, Insomnia, Docker, DBeaver, IntelliJ IDEA, Grafana, Jupyter Notebook, Neo4j

EXPERIENCE

Engineer Aug 2021 - Present
Target Corporation India Pvt. Ltd. *Bangalore, India*

- Worked in the Capacity Engine team which in-turn supports Guest Order Allocation team to provide solutioning for guest digital orders.
- Gained experience coding in Java and other tools related to backend development such as Spring Boot, Kafka, PostgreSQL and Grafana to name a few.
- Demonstrated the ability to quickly pick up the functionalities associated with an application and how it interacts with other services.

Research Intern Apr 2020 - Jul 2020
National Institute of Technology, Warangal (NITW) *Warangal, India*

- Worked on building a deep learning model that could differentiate fake article headlines/tweets using minimal features.
- The proposed model used 2 sub-models - one which relied on the semantics of the sentence and the other which looked at other statistics related to the structure of a sentence.
- Got hands on experience using PyTorch and Keras.

PROJECTS

Deep Sequence Models for Ligand-Based Virtual Screening (NITC - Final Year Project)

- Was part of a team which worked on building a deep learning model that could determine the activity of a ligand against the bacteria which caused tuberculosis.
- We used an attention based model with the SMILES notation of candidate molecules to perform virtual screening and saw a significant increase in accuracy ($\sim 27\%$) over our benchmark model.

Arxiv Telegram Bot

- Worked on a telegram bot using Python and a Telegram bot wrapper to offer a subscription service. Subscribers could opt to keep up-to-date with the latest papers published on Arxiv based on their preferences.
- This project was inspired by the Arxiv Sanity Preserver and used pre-existing packages.

College Health Centre Database Management System (Course Project)

- Helped build the backend for the application which digitized record keeping and management at our college health center.

POSITIONS OF RESPONSIBILITY

B.Tech Student Representative

CSE Branch, NIT Calicut

- Nominated to be part of the Department Consultative Committee (DCC) which held monthly meetings to discuss proceedings pertinent to department courses or administration.
- Led the student's voice and aired concerns or suggestions which influenced decisions on how B.Tech courses were conducted.
- Was actively involved in discussions with professors as well as student representatives from other programmes and committees.

Instructor

CSEA, NIT Calicut

- Volunteered to be a Python instructor for freshman students as part of a 2-day AI crash course.
- Developed a new interest in teaching Python and basic programming in general. Received positive feedback from candidates and was also able to increase my connections with CSEA members.

PUBLICATIONS

- Viswajit Vinod Nair, Sonaal Pathlai Pradeep, Vaishnavi Sudheer Nair, P. N. Pournami, G. Gopakumar, and P. B. Jayaraj. "Deep Sequence Models for Ligand-Based Virtual Screening." *Journal of Computational Biophysics and Chemistry* 21, no. 02 (2022): 207-217. <https://doi.org/10.1142/S2737416522500107>