Sudipta Singha Rathi

Software Developer | Linux Enthusiast

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About Me

A final year Computer Science and Engineering student at Jahangirnagar University, passionate about Machine Learning, Reinforcement Learning, System Design, Computer Security, Competative programming and DevOps.

Education

- **Jahangirnagar University** – BSc in Computer Science and Engineering

- **Milestone College** – HSC in Science

- **Tetaigaon Rashid Uddin High School** – SSC in Science

Skills

Category	Skills
Programming	Python, C, C++, Java, LaTeX, Bash
Frameworks	Django
Tools	Linux, Git, WSL, Docker, AWS
Databases	SQLite

Experience

- **Technical Team Leader** – National Collegiate Programming Contest 2023, Jahangirnagar University

  - Led the technical team in organizing and managing the programming contest.

  - Coordinated technical aspects including setting up contest environment, installing ubuntu in almost 200 computers, monitoring.

- **Mentor** – Jahangirnagar University Programming Community

  - Actively mentor junior members in competitive programming.

  - Provide guidance and training for improving problem-solving skills.

Projects

JUMCMS

> To improve medical center operations, JUMCMS (Jahangirnagar University Medical Center Management System) is a web application built with Django. For Admins, Doctors, Patients, Lab technicians, and Store managers, it provides functionality tailored to their roles.
> https://github.com/sudiptarathi2020/JUMCMS-Jahangirnagar-University-Medical-Center-Management-System.git

Data Structure and Algorithms

> My Data structure and algorithms template and codes. This repository contains cpp and python implementation for segment tree, binary index tree, red-black tree, avl tree, splay tree, treap, scc, centroid decomposition, convex hull, minheap and maxheap, heavy-light decomposition, huffman coding, line sweep, lowest common ancestor, sparse table, kd tree etc.
> https://github.com/sudiptarathi2020/Data-structures-and-Algorithms

Chess Game

> This is a very simple chess game developed for my research project Reinforcement learning.
> https://github.com/sudiptarathi2020/Simple-Chess-Engine.git

Puddle

> Simple E-commerce website for buying, selling toys and other goods. This django + template based web app is created following a youtube tutorial.
> https://github.com/sudiptarathi2020/puddle

DIP Lab Works

> This repository contains a collection of Python scripts implementing various image processing techniques. These techniques are commonly used for detecting shapes, filtering noise, and transforming image color spaces.
> https://github.com/sudiptarathi2020/Digital-Image-Processing-Lab

Online Judge Problem Solutions

> Solutions to problems from Codeforces, LightOJ, and other online judges, with explanations. https://github.com/sudiptarathi2020/Problem-Solves.git

Online Judge Statistics

Codeforces: 383 problems solved

CSES 53 problems solved

LightOJ: 82 problems solved

Hackerearth 23 problems solved