Sanyam Garg

Roll No.: 2022448
Bachelor of Technology
Indraprastha Institute of Information Technology Delhi

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 GitHub Profile
 LinkedIn Profile
🌐 Portfolio

EDUCATION

•**Bachelor of Technology in Computer Science** *2022-26*
Indraprastha Institute of Information Technology Delhi CGPA: 7.82

WORK EXPERIENCE

•**Full-Stack Web Developer Intern - CRF, Indian Institute of Technology (IIT) Ropar** *Github*
React.js, Node.js, Express.js, JWT, bcrypt, Multer

- Architected full-stack web app using **React.js**, **Node.js**, and **Express.js**, improving user engagement by 40%
- Engineered secure auth system using **JWT** and **bcrypt**, reducing unauthorized access
- Developed RESTful APIs for facility bookings and publications
- Built a role-based admin dashboard with 10+ functional tabs; restricted access for sub-admins and enabled full content control for main admins.
- Optimized file management using **Multer**, also achieving faster upload speeds

•**Software Development Engineer Intern - Velmenni Research & Development**
UI/UX, CLI Tools, Web Development

- Enhanced UI/UX of Li-Fi network config dashboard, improving user interaction and data visualization
- Developed CLI tools for network management, integrating with main application software
- Extended website functionality by implementing features from main software
- Bridged gap between CLI tools and web interface for seamless user experience

PERSONAL PROJECTS

•**Personalized Fitness Trainer**
FastAPI, React.js, Tailwind CSS, MediaPipe, OpenPose

- Built full-stack app using **FastAPI**, **React.js**, and **Tailwind CSS** for real-time exercise form correction
- Implemented pose estimation using **MediaPipe** and **OpenPose** to track 33 body keypoints and calculate joint angles
- Engineered real-time feedback system providing specific angle-based corrections with pre-exercise instructions
- Built responsive web interface with high-accuracy angle calculations for static exercises

•**Drug-Drug Similarity Model - Translational Biology Lab, IIIT Delhi**
Machine Learning, Molecular Descriptors, ChEMBL

- Built drug database by extracting SMILES structures and features from ChEMBL IDs
- Engineered feature set using 1829 molecular descriptors and 7 fingerprint types
- Developed ML models achieving 97% accuracy and 0.9 AUC across cancer, neurogenesis, and natural compounds datasets
- Implemented robust evaluation metrics including MCC and AUC for biological target prediction

•**Census Income Prediction System** *GitHub*
Python, Scikit-learn, Random Forest

- Designed ML solution predicting income levels with 99% accuracy using 45,000+ entries and 14 features
- Optimized Random Forest algorithms through feature engineering, improving accuracy from 84% to 99%
- Delivered analytics tool to non-profits, increasing fundraising efficiency by 25%

TECHNICAL SKILLS AND INTERESTS

Programming Languages: C/C++, Python, Java, SQL, Bash
Tools and Technologies: Django, FastAPI, Flask, Docker, MySQL, Git, LaTeX, Android Studio, Figma, Scikit-Learn, TensorFlow, Keras, XAMPP
Relevent Coursework: Competitive Programming, Machine Learning, Operating Systems, Analysis and Design of Algorithms, Data Structures & Algorithms, Advanced Programming, Fundamentals of Database Management Systems, Kali Linux, GitHub, PyTorch

ACHIEVEMENTS AND AWARDS

• **Specialist on Codeforces** Competitive coder with participation in over 20 contests with a rating of 1431.

• **Global Rank 1391 in Codeforces Round 996 (Div. 2)** Ranked out of 16,000+ global participants

•**TCR-ESM Web Server Developer, IIIT Delhi:** Built and deployed the TCR-ESM web server (XAMPP, deep learning model fine-tuning) for computational biology research - **Live Website** | **Github**