

# Sarthak Sahu

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## EDUCATION

**International Institute Of Information Technology (IIIT)**

*Bachelor of Technology in Computer Science And Engineering*

Bhubaneswar, India

Nov. 2022 – July 2026

## PROJECTS

**Mohr's Hardness Regression Model** | *Python, TensorFlow, NumPy, Pandas, Matplotlib, Seaborn, LightGBM, XGBoost*

- Implemented a regression project in Python using a diverse tech stack including NumPy, Pandas, Matplotlib, Seaborn, and popular machine learning libraries like LightGBM, XGBoost, and CatBoost.
- Utilized ensemble models such as VotingRegressor and a variety of regression techniques, including HistGradientBoostingRegressor, AdaBoostRegressor, ExtraTreesRegressor, RandomForestRegressor, BaggingRegressor, GaussianProcessRegressor, GaussianNB, KNeighborsRegressor, and SVC.
- Integrated TensorFlow and TensorFlow Decision Forests for deep learning aspects, constructing a custom neural network model with batch normalization, dense layers, and specified loss and metric functions.

**RideSwift** | *Java, XML, Firebase API, Gradle*

- Developed RideSwift, an Android app for seamless cab rides, using Java and XML with minimal boilerplate code for an elegant and efficient user experience.
- Integrated Firebase API for real-time ride tracking, ensuring accurate updates and efficient data management.
- Employed Gradle for efficient build management, keeping the project organized and synchronized.

**SynthSocial** | *React.js, Appwrite, React Query, TypeScript, Shadcn, Tailwind CSS*

- Developed SynthSocial, a dynamic social media website, using React.js for the frontend, Appwrite for backend functionalities, React Query for efficient data fetching, TypeScript for robust typing, Shadcn for stunning design, and Tailwind CSS for a responsive UI.
- Designed a sleek and responsive UI with modern aesthetics, showcasing the synergy of Shadcn and Tailwind CSS.
- Leveraged TypeScript for a statically typed codebase, ensuring robustness and maintainability.

**FitBit HealthCare Trend Predictor** | *Pandas, NumPy, Matplotlib, Seaborn*

- Conducted in-depth analysis of fitness data using Python, leveraging Pandas, NumPy, Matplotlib, Seaborn, and Plotly Express.
- Cleaned and merged datasets on daily activity, sleep patterns, and weight information, creating a comprehensive DataFrame for exploration.
- Explored and visualized relationships between variables, including a scatter plot depicting calories burned by total steps, a box plot illustrating users' daily activity by day of the week, and a bar plot showcasing the intensity of exercise activity.
- Employed Plotly Express for interactive visualizations, such as a scatter plot exploring users' difficulty to sleep versus steps taken.

## ACHIEVEMENTS

**CodeForces:** Specialist on CodeForces(1436) Top 25 percent of all users

Ranked 859 out of over 20,000 users on Educational CodeForces Round 161

Developed a Discord chatbot fostering competitive programming engagement, providing users with daily progress updates and encouraging a dynamic learning environment.

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS

**Frameworks:** React, Node.js, Flask, Firebase

**Developer Tools:** Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

**Libraries:** pandas, NumPy, Matplotlib, Seaborn, LightGBM, XGBoost