

## LAKSHYA SHUKLA

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ROLL NO – 2K22/EE/158

### EDUCATION

B.Tech in Electrical Engineering	2022 - Present	Delhi Technological University, New Delhi	7.63 CGPA
CBSE (Class XII)	2021	Evergreen Public School	93.8%
CBSE (Class X)	2019	Evergreen Public School	91.2%

### INTERNSHIPS

#### ***Research internship at DTU (Mathematics & Computing Dept.) | July 2025 – Present|***

- Analyzed over 10,000 YouTube video metadata records using Python and scikit-learn to improve click-through rate (CTR) prediction models, driving actionable insights for algorithmic fairness research.
- Automated YouTube data extraction (Python pipeline), reducing manual effort by 15 hrs/week, improving accuracy by 7%, and revealing 20–30% bias in recommendations.
- Integrated SQL pipelines with YouTube API, reducing query response time by 40% and enabling real-time behavioral analytics for recommendation studies.
- Designed and developed four interactive Tableau dashboards visualizing user engagement patterns, which empowered the research team to implement a new video labeling methodology and support fairness initiatives.
- Streamlined data processing with cross-functional teams, improving dataset accuracy by 10% and enhancing the quality of behavioral analytics for recommendation studies.

### ACADEMIC PROJECTS

#### **Netflix Movie Data Analysis (Python, Pandas, Seaborn) [[Github](#)]**

- Cleaned and transformed a dataset of 25,000+ Netflix movies, optimizing memory usage and enabling deeper trend analysis.
- Visualized genre frequency, popularity, and ratings trends — revealed insights like Drama being the top genre with 14% share.
- Delivered insights through clear visualizations using Seaborn and Matplotlib, enhancing storytelling for stakeholder-ready reports.

#### **Smart Management & Real-Time Analysis of Integrated Renewable Energy Grid Systems**

- Designed and simulated an **integrated renewable energy smart grid** combining solar, wind, diesel backup, and **V2G (Vehicle-to-Grid)** infrastructure using MATLAB/Simulink.
- Analyzed the contribution of each energy source and identified diesel dependency, proposing optimization strategies to enhance renewable penetration.
- Recommended improvements such as predictive control, sensor-based monitoring, and reduced diesel reliance for more sustainable industrial energy systems.

#### **EV Adoption Analysis Dashboard – Tableau Data Visualization Project [[Github](#)] [[Live link](#)]**

- Built an interactive Tableau dashboard analyzing ~150K EV records, highlighting adoption trends, range stats, and CAFV eligibility.
- Cleaned and preprocessed data using Python (pandas): handled missing values, standardized categories, and filtered data (2010–2024).
- Visualized key insights (BEV vs PHEV share, top brands, state adoption) to support data-driven decisions for policymakers and stakeholders.

### ACADEMIC ACHIEVEMENTS AND AWARDS

- Participated in Viksit Bharat 2047
- Certifications in Desh Ke mentor program
- Certification in Rashtra Bhasha Vikas parishad
- Certification in Skill India NSQF (Level – 2)
- Certification in MATLAB (MathWorks)

### TECHNICAL SKILLS

<b>Languages and Frameworks</b> - Python NumPy, Pandas, Matplotlib, Seaborn, Excel (Pivot Tables, VLOOKUP)	<b>Concepts</b> - Machine Learning, Data Analytics, Data Modeling, statistical Techniques, Forecasting, Electrical Machines, Power Electronics, Control Systems & Instrumentation <b>Databases &amp; Tools</b> - SQL, PostgreSQL, Tableau, Power BI, Excel	<b>Platforms</b> - Git, VS Code, Jupyter, Matlab, Excel, Canva, REST APIs, simulink,
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### POSITIONS OF RESPONSIBILITY

- Member, Rotaract Society (2022-present)
- Member, Business Bulls Society (2023-present)
- Member, Cognitive Minds Society (2023-present)
- Corporate executive, corporate department, Team Okami Racing - Collaborated within the Okami Racing corporate department to secure sponsorships, leading to the acquisition of three new partnerships and exceeding fundraising goals by 15% for the racing team.

### ADDITIONAL INFORMATION

- LinkedIn - [www.linkedin.com/in/lakshya-shukla-205bba326](https://www.linkedin.com/in/lakshya-shukla-205bba326)
- GitHub - <https://github.com/Lakshyagit-acc>
- Coding Profiles - [Leetcode](https://leetcode.com/lakshya_shukla/), [GeeksforGeeks](https://geeksforgeeks.org/profile/lakshya_shukla/)
- Fluent in Hindi and English