

# Kshitij Rai

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## EDUCATION

### Delhi Technical Campus, GGSIPU

Delhi

*Bachelor of Engineering in Computer science - 9.01 CGPA*

*2020 – 2024*

- **Related Coursework:** Data Structures & Algorithms, Object-Oriented Programming, DBMS, Operating System

## TECHNICAL SKILLS

**Languages:** Java (Proficient), Python, C/C++

**Database:** MySQL, Oracle, PostgreSQL

**Frameworks:** Jdbc, Collection, Servlet, JSP, Spring, Spring Boot, Hibernate

**Developer Tools:** IntelliJ IDEA, Eclipse, Maven, DBeaver, Git, GitHub, Jira, Postman, AWS

**Libraries:** OpenCV, Apache PDFBox, NumPy

## EXPERIENCE

### Techbets Infotech

Noida

*Software Developer*

*Jun 2024 - Nov 2024*

- Integrated custom email messaging API service for bulk user communication.
- Developed graphical reports using Apache PDFBox, enhancing data visualization and presentation.
- Implemented image enhancement and scanning for Barcodes and QR codes, supporting bulk data processing.
- Developed a web application for JCERT to efficiently manage an Olympiad involving over 100k students.

### Defence Research and Development Organisation

Delhi

*Software Developer Intern*

*Dec 2022 - Jan 2023*

- Developed a robust face recognition system under the guidance of my mentor at DRDO.
- Implemented the Local Binary Pattern Histogram algorithm in Python with OpenCV, NumPy and OS libraries.
- Created a face recognition-based lock/unlock system utilizing a dataset provided by the mentor.
- Optimized the system for real-time performance, achieving 77.5% accuracy in lock/unlock operations.

## PROJECTS

### ClassSync | Java, JSP, SpringBoot 3.3.5, Hibernate, PostgreSQL, Maven, Apache PDFBox, AWS

- Developed a high-traffic Spring Boot application hosted on AWS, supporting 100,000+ monthly users.
- Developed role-based login for admins, teachers, and students, enabling exam-related access.
- Streamlined admit card downloads via UDISE and admin control over data uploads and scheduling.
- Implemented Hibernate with PostgreSQL for database management and Apache PDFBox for generating PDFs.
- GitHub Link: [github.com/kshitijrai11/Class-Sync](https://github.com/kshitijrai11/Class-Sync)

### RESTify | Java, Maven, SpringBoot 3.3.3, Hibernate, H2 Database

- Accelerated API response handling by streamlining validation and data transformation layers.
- Enabled efficient debugging and error resolution by introducing comprehensive exception management.
- Simplified client integration with robust and user-friendly REST endpoints.
- GitHub Link: [github.com/kshitijrai11/RESTify](https://github.com/kshitijrai11/RESTify)

### FacePay | Python, MTCNN, Fernet, OpenCV, MySQL

- Integrated credit card with user's face for enhanced biometric security.
- Achieved 96.977% accuracy with MTCNN (Multi-task Cascaded Neural Network).
- Implemented credit card fraud detection using Luhn's algorithm (Checksum).
- GitHub Link: [github.com/kshitijrai11/Face-Pay](https://github.com/kshitijrai11/Face-Pay)

## ACHIEVEMENTS

### Published Research Paper: | Published in **IEEE 2024** at IC2PCT

- 'Presented Research paper on "Evolving Payment Transaction: Credit card reader using multifunctional cascaded neural network" at International Conference on Computing, Power, and Communication Technologies by IEEE.'