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

Defence Research and Development Organisation — Delhi
Software Developer Intern
- 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.

Techbets Infotech — Noida
Software Developer
- 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.

PROJECTS

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).

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.
- Implemented role-based login for admins, teachers, and students, allowing access to examination-related functionalities.
- Enabled teachers to download student admit cards by UDISE code, and admins to manage student data uploads and control download availability by date.
- Utilized Hibernate with PostgreSQL for database management and Apache PDFBox to generate dynamic, downloadable PDFs.

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.

ACHIEVEMENTS

Published Research Paper: | *Published in IEEE 2024*
- Title: 'Revolutionizing Payment Security: Credit Card Reader with Face Recognition'.