

# MANAN JAIN

Buffalo, New York

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## Education

**State University of New York at Buffalo**

*Master's in Artificial Intelligence (GPA 3.8/4.0)*

**August 2024 - Present**

*New York, USA*

**Keshav Memorial Institute of Technology**

*Bachelor's in Computer Science Engineering*

**August 2019 - June 2023**

*Hyderabad, India*

## Experience

**Experian**

*Software Development Engineer*

**Oct 2023 – August 2024**

*Hyderabad, India*

**CPD Experian Verify Solution**

- Led **full-stack development** of CPD Waterfall tool using **JSP**, **ExtJS**, and **Java Spring/Hibernate**, designing UI for secure PII data upload and credit report download.
- Architected backend services with **DAOs**, **Services**, **Controllers**, and **MySQL** stored procedures, optimizing data flow and transaction management.
- Automated API-driven report generation using **Quartz Scheduler** with **Cron Jobs**, reducing manual intervention by **40%**.

**CS-Access-Automation**

- Engineered automation enhancements using **Python Robot Framework** and **Selenium WebDriver**, refining test workflows and cross-product compatibility.
- Optimized error reporting accuracy and expanded test coverage by **20%** through development of robust, scalable test cases.

**Experian**

*Software Development Engineer (Intern)*

**Sept 2022 – Sept 2023**

*Hyderabad, India*

**CS-Access Application (Credit Score Calculation)**

- Engineered **Java Spring Boot** backend services with **Hibernate ORM/JPA**, designing CRON jobs to automate credit score calculations and optimize batch processing efficiency.
- Architected **DAO layer** and **service-tier modules** using **Spring Data JPA**, streamlining transactional workflows for PII data handling and enhancing scalability in **MySQL**-based environments.
- Collaborated with cross-functional teams to integrate **RESTful APIs**, resolve performance bottlenecks, and deploy secure credit report generation pipelines adhering to compliance standards.

## Research Intern

**University at Buffalo**

*Research Assistant*

**Nov 2024 – Present**

*Buffalo, NY*

**Sustainable Deep Learning Optimization**

- Optimized energy efficiency in **deep learning models** using **Python**, **C++**, and advanced computational techniques, contributing to sustainable computing practices.
- Performed memory and execution profiling using **multiprocessing**, **parallel computing**, and **Linux-based environments**, achieving significant improvements in resource utilization.
- Developed precise energy and performance profiling methods for resource-intensive applications, leveraging **advanced system-level tools** to promote greener computing solutions.

## Projects

**Image Amplification and Prediction Model** | *Deep Learning, Python, Real-ESRGAN, Computer Vision* | [Link](#)

- Engineered a **Python-based computer vision pipeline** with **Real-ESRGAN**, amplifying low-res image pixel density and predicting missing values via adversarial training.
- Automated video dataset workflows using **FFmpeg**, optimizing pre-trained models for super-resolution tasks to enhance image clarity and processing efficiency.

**My Journal** | *NodeJs, ExpressJS, MongoDB, EJS, PassportJs* | [Link](#)

- Engineered a secure **Node.js/ExpressJS** journal platform with **Passport.js** authentication and **MongoDB** for encrypted entry storage.
- Built dynamic **EJS/Bootstrap** frontend and **RESTful APIs**, ensuring scalable user interactions and data privacy via encryption standards.

## Technical Skills

**Programming and Scripting:** C, C++, Python, Java, JavaScript, HTML/CSS, Bootstrap

**Frameworks and Tools:** ReactJS, Java Spring, Hibernate, Selenium, Junit, NodeJS, ExpressJS

**Databases and Cloud Platforms:** MySQL, MongoDB, JDBC, AWS

**Technologies and Version Control:** Machine Learning, Deep Learning, Web3 (Blockchain), Git