Balbir S Bhatia

8700526484 | bbhatia_be22@thapar.edu | **in**Balbir | ⓞbalbirs22| Portfolio

EDUCATION

Thapar Institute of Engineering and Technology   Patiala, Punjab, India
Bachelor of Engineering in Computer Science and Engineering (Current CGPA : 9.43)   *Sept 2022 – May 2026*
Pursuing a comprehensive curriculum with a focus on computer science fundamentals, algorithms, data structures, and software development.

Mata Gujri Public School   New Delhi, India
Class XII CBSE (98.2%, PCM+CS), School Topper   *Mar 2021 – July 2022*
Excelled in Physics, Chemistry, Mathematics, and Computer Science, scoring 99.0%

TECHNICAL SKILLS

Languages: Python, R, C/C++, JavaScript
Data Analytics Tools: Tableau, Power BI, Spreadsheets
Frontend Skills: HTML, CSS, React.js, Bootstrap
Backend Skills: Node.js, Express.js, Flask
Databases: MySQL, PostgreSQL, MongoDB, SQLite
Libraries and Frameworks: pandas, NumPy, Matplotlib, Seaborn, scikit-learn, NLTK, TensorFlow, Keras, Spacy
Core Subjects: Data Structure and Algorithm, Operating Systems, Database Management System, Computer Networks, Cloud Computing, Corporate Finance
Other Skills: Git, Docker, Unit Testing
Courses: Google Professional Data Analytics Certificate by Coursera, Data Science and Machine Learning Course by Coding Ninjas, Overall 18+ Self Learning Courses Undertaken

PROJECTS

Career Pathway | *Python, NLTK, Flask, Spacy*   *Feb 2025 – Mar 2025*
- Built an automated resume parsing system using NLP and Named Entity Recognition (NER), achieving 95% accuracy in extracting key candidate skills details.
- Implemented machine learning-based classification, improving candidate-job matching by 30% through intelligent keyword analysis and semantic similarity scoring.
- Developed an AI-powered cold emailing module, increasing recruiter response rates by 40% by personalizing outreach based on candidate profiles.
- Optimized email scheduling and follow-up strategies using engagement analytics, enhancing overall recruitment efficiency by 25%.
- Integrated the system with cloud-based databases, ensuring seamless and scalable resume storage, retrieval, and automated job recommendations.

Semantic Book Recommender System | *Python, NumPy, Streamlit, NLTK, Spacy*   *Jan 2025 – Feb 2025*
- Developed a semantic book recommender system leveraging NLP techniques, enhancing recommendation accuracy by 22% based on user reading preferences.
- Implemented TF-IDF and word embeddings to analyze book content and user reviews, improving contextual understanding of recommendations.
- Integrated collaborative filtering, reducing response time by 35% while maintaining high relevance in suggestions.
- Enhanced user engagement by incorporating sentiment analysis, leading to a 28% improvement in recommendation acceptance rates.
- Deployed the system on a cloud platform, enabling scalable, real-time book recommendations with automated updates.

CareHomes | *Node.js, Express.js, PostgreSQL*   *Jan 2024 – May 2024*
- Instantiated and optimized backend infrastructure, reducing data retrieval time by 35% and decreasing storage footprint by 20%.
- Streamlined frontend functionality by resolving two critical issues, leading to a 30% increase in engagement.
- Developed and integrated secure authentication and authorization features, enhancing overall security and reducing unauthorized access attempts by 50%.
- Facilitated user feedback mechanisms, improving overall usability and user satisfaction by 20%.

ACHIEVEMENTS

Hackfest 2025   Patiala, Punjab, India
2nd Runner-Up   *Feb 2025*
Ranked 3rd out of 100+ teams in a national-level hackathon by building a full-stack AI-based solution under 36 hours.

CBSE Class XII Topper   New Delhi, India
School Topper – Class of 2021   *Mar 2021 – Jul 2022*
Scored 98.2% overall with 100 in Computer Science and 99 in Physics; awarded CBSE merit certificates in both subjects.