

# Navkar Jain

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[navkarjain.netlify.app](https://navkarjain.netlify.app) | [github.com/navkar98](https://github.com/navkar98) | [leetcode.com/navkar98](https://leetcode.com/navkar98)

## TECHNICAL SKILLS

- **Programming & Scripting:** Python, Django, Flask, Java, Spring Boot, JavaScript, React.js, Node.js, HTML, and CSS.
- **Frameworks & Libraries:** NumPy, TensorFlow, Keras, Scikit-Learn, PyTorch, Transformers, Kafka, Junit, JSP.
- **Databases & Tools:** SQL, MongoDB, AWS RDS (MariaDB), Oracle, Jira, WordPress.
- **DevOps & Cloud Services:** AWS (EC2, Lambda, S3), Azure, GIT, Docker, Kubernetes.

## PROFESSIONAL EXPERIENCES

**Software Developer** | VDC at UMass Boston | Boston, MA Mar '23 - Present

- Updated and extended webpages using Divi WordPress ensuring 100% updated information and better user experience.
- Developed a migration script for over 30,000 files with Microsoft Graph API, streamlining and enhancing file retrieval by 50%.
- Revolutionized ROI analysis by automating reports in Python mapping 6+ years of data and reducing manual time by 75%.

**Backend Engineering Intern** | Building Assure PBC | Concord, MA (Remote) Fall '23; Fall '24

- Optimized efficiency by redesigning an alert generation script through Azure functions, dynamically handling 20+ alerts.
- Incorporated depth-first-search algorithm and data frame to solve nested conditions and scalability problems by  $O(\text{Vertices})$ .
- Developed RESTful APIs for utility consumption, facilitating data-driven decisions and reducing consumption costs by 20%.

**Senior Software Engineer** | Radix Analytics Pvt. Ltd. | Ahmedabad, India Nov '18 - Jul '22

- Led backend development of the RisQ model for a fintech company, leveraging Django MVT and Agile methodology, resulting in 2.5 Million Rupees monthly revenue.
- Optimized performance by implementing a scalable scoring system for 15,000 companies, processing data from over 60 tables to generate daily scores dating back to 2015.
- Enhanced system efficiency by 80% through optimized Pandas DataFrame and Redis integration, reducing database calls and enabling server-side parallel processing.
- Improved frontend features including server-side rendering, REST API integration, and SSO, increasing data accessibility and system interaction by 90%.
- Streamlined reporting by creating a Kafka-based process to generate ~1,000 reports daily, reducing reporting time by 50%.
- Boosted user engagement with data visualizations using JavaScript and Plotly, advancing ad management capabilities and analysis by 35%.

## RESEARCH

- **User-Centric Adaptive Regularization (Ongoing):** Developing adaptive regularization techniques to reduce popularity bias in collaborative filtering systems.
- **Fairness-Aware Explanations in Recommender Systems (Ongoing):** Proposing multi-dimensional explanations to enhance fairness in recommendation algorithms.

## ACADEMIC PROJECTS

**Medical Chatbot** | University of Massachusetts Boston May '24 - Sep '24

- Developed a RAG pipeline using langchain, faissDB and GroqCloud to access the Llama 3 model and indexed 100+ site info.
- Classified a user query to a medical related question by exercising with several prompting techniques.

**Mashup Tag Recommendation** | University of Massachusetts Boston Jan '24 - May '24

- Developed a mashup tag recommendation system, utilizing Llama 2, Mistral LLMs, and a Transformer model to analyze ~6,000 mashups, enhancing tag description accuracy and content understanding.

## EDUCATION

**University of Massachusetts Boston**

PhD in Computer Science | GPA: 3.93 Sep '24 - May '27

- **Experience: Graduate Teaching Assistant** for Intermediate Computing with Data Structures for Fall '24.

Master of Science in Computer Science | GPA: 3.93 Sep '22 - May '24

- **Courses:** Analysis of Algorithms, Computer Vision, Machine Learning, Object-Oriented Programming, Database App Development.
- **Experience: Graduate Teaching Assistant** for Intro to Engineering, Circuit Analysis, and Senior Design Project for Spring '24.