

# Rohan Dave

(617) 691-6918 | Boston | [dave.ro@northeastern.edu](mailto:dave.ro@northeastern.edu) | [linkedin.com/in/rohandewangdave/](https://www.linkedin.com/in/rohandewangdave/) | [github.com/rohanddave](https://github.com/rohanddave)

## Education

**Northeastern University**, Boston MA

**Sept 2024 - Present**

Master's of Science in Computer Science | **GPA: 4.0** | Program Design Paradigm, Foundations of AI, Algorithms, Web Dev

**University of Mumbai**, Mumbai MH

**Aug 2018 - Aug 2022**

Bachelor of Engineering in Information Technology | **GPA: 3.76** | Operating Systems, Computer Networks, Computer Architecture

## Work Experience

**Software Engineer at McGraw Hill Education, Mumbai** | [Link](#)

**Aug 2023 - Aug 2024**

- Enhanced user engagement by 75% through implementing data synchronization across web and mobile platforms with NestJS.
- Maintained backward compatibility while adding new content by using API versioning, ensuring smooth user experience.
- Reduced API response times by 40% by optimizing Redis-based caching for user content while ensuring efficient cache strategy.
- Significantly improved code reliability and reduced production bugs by increasing test coverage from 40% to 75% using Jest.
- Cut deployment time by 50% by reducing lambda bundle size, improving CI/CD speed and deployment velocity.
- Skills: **Typescript, NodeJS, NestJS, GitHub Actions, Docker, Lambda, S3, CloudWatch**

**Software Engineer at TheFridayCompany, Mumbai** | [Link](#)

**Sept 2022 - Aug 2023**

- Achieved efficient turf booking with <200ms OpenAPI REST API with Swagger using NestJS, MongoDB and Redis for caching.
- Ensured data integrity by implementing JWT authentication & role based authorization, increasing secure access by 70%.
- Enhanced turf discovery with Elasticsearch, optimizing search, filtering and geo-based results, improving search speed by 30%.
- Mitigated double bookings with PostgreSQL locking and app level concurrency control, resulting in 100% data consistency.
- Streamlined transactions by integrating Stripe API with webhooks, diversifying payment methods, increasing revenue by 25%.
- Delivered highly available video using Cloudflare CDN & AWS S3 for efficient access and storage, reducing load times by 40%.
- Skills: **NestJS, Typescript, PostgreSQL, MongoDB, Redis, Elasticsearch, Stripe API, Cloudflare CDN, AWS, Docker**

## Projects

**Pokemon 2D RPG Game** | [Link](#)

**Dec 2024 - Jan 2024**

- Built a game in Java applying Factory Pattern for dynamic Pokemon generation based on map regions and spawn rates.
- Designed flexible battle strategies using Strategy Pattern, allowing for different tactics and actions for PvP and PvAI battles.
- Applied Observer Pattern to manage real time changes in player inventory, Pokemon stats and item effects.
- Used Visitor Pattern for applying items to Pokemon, enabling efficient item interactions and behaviors.
- Optimized gameplay performance using Object Pooling Pattern for managing game objects ensuring consistent frame rates.
- Skills: **Java, Object Oriented Design, Design Patterns, Game Development, Data Structures, AI**

**Music Recommendation System** | [Link](#)

**Sept 2024 - Dec 2024**

- Conducted exploratory data analysis on Spotify's 12M song dataset to understand correlations between features like valence, etc.
- Collected user feedback by accepting ratings for songs, aggregating them into a user vector reflecting individual preferences.
- Applied KNN with Cosine Similarity & Euclidean Distance for personalized song recommendations based on user vector.
- Implemented dynamic recommendation aggregation, enabling flexible weighting of multiple ML algorithms.
- Skills: **Python, Scikit-learn, Numpy, Pandas, Matplotlib, PyTorch, KNN, Cosine Similarity, Euclidean Distance**

**OnePrediction** | [Link](#)

**Sept 2022 - Sept 2024**

- Built a real-time ranking leaderboard with Redis sorted sets and developed an algorithm to score user predictions against lineups.
- Reduced API request load by 25% with rate limiting, enhancing system reliability, security and reducing downtime.
- Designed and automated AWS infrastructure deployment with Terraform, reducing deployment time by 50%.
- Skills: **NestJS, Typescript, PostgreSQL, TypeORM, Redis, Elasticsearch, Terraform, Lambda, API Gateway, Load Balancer**

**Blockchain & ERC-20 Token** | [Link](#)

**Aug 2020 - Aug 2022**

- Developed a ReactJS web app integrated with MetaMask to enable 500+ secure user transactions during token sale.
- Implemented ERC-20 token smart contract on Ethereum for seamless asset tokenization and management.
- Skills: **ReactJS, HTML, CSS, Javascript, Ethereum, Solidity, MetaMask**

## Technical Skills

Programming Languages: Typescript, NodeJS, Java, Python, Go, Javascript

Web Technologies: REST, GraphQL, Web Sockets, Webhooks, OpenAPI, Swagger, HTML, CSS, ReactJS

Database: Postgres, MySQL, MongoDB, Redis, Elasticsearch

Cloud Services: AWS (S3, Lambda, EC2, ECS, ECR, CloudWatch, ElastiCache, RDS, OpenSearch), Cloudflare CDN

DevOps: Github Actions, Terraform, Docker

Machine Learning & AI: Scikit-learn, Numpy, Pandas, Matplotlib, Pytorch