

# Dhruv Belai

Software Engineer | MERN Stack | AWS | Automation

Boston | MA | (857) 763-9077

belai.d@northeastern.edu | linkedin.com/in/dhruv-belai | github.com/DeeyBeey | deeybeey.vercel.app

## EDUCATION

**Northeastern University, Boston, MA**

*September 2023 – April 2025*

*Master of Science in Computer Science*

**Relevant Coursework:** Scalable Distributed Systems, Algorithms, Machine Learning, Web Development

**University of Mumbai, Mumbai, IN**

*January 2020 – June 2023*

*Bachelor of Engineering in Computer Engineering*

**Relevant Coursework:** Data Structures, Software Testing, Software Engineering, Cloud Computing, Operating Systems

## SKILLS

**Languages:** Python, Java, JavaScript (ES6+), TypeScript, Bash, SQL

**Databases:** MySQL, MongoDB, PostgreSQL

**Frameworks & Libraries:** React, Redux, Node.js, Express, Axios, Mongoose, jsPDF, JWT, bcrypt, Multer, REST APIs, JUnit, Jest, Cypress, Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, PyTorch

**Cloud, DevOps & Tools:** AWS (EC2, Lambda, S3, RDS, SageMaker), Docker, Git, GitHub Actions (CI/CD), VS Code, IntelliJ, PyCharm, Jupyter Notebooks

## WORK EXPERIENCE

**Machine Learning / Software Engineer, SolBid**

*June 2025 – Present*

- Productionized HRBot and SupportBot using GenAI (Phi-1.5, Phi-3 mini) with a custom RAG pipeline and quantization for efficiency; integrated with Slack to automate HR query resolution, reducing founder involvement and ambiguity.
- Automated solar panel placement using Shapely, image processing, and a rule-based algorithm, eliminating manual effort and layout time from over 90 seconds to less than 5 seconds while ensuring safety, compliance, and visual appeal.

**Founder & Software Engineer, PayMate**

*January 2025 – Present*

- Architected a full-stack MERN web application to streamline receipt-based bill splitting, slashing manual effort from roughly 15 minutes to under 3 by integrating Tesseract OCR, Regex parsing, and OpenAI API-powered text refinement.
- Designed a responsive, user-first interface with MongoDB-backed split history, input validation, downloadable PDF summaries, and modular components to ensure clarity, accuracy, and long-term maintainability.

**Data Scientist Teaching Assistant, Northeastern University**

*September 2024 – April 2025*

- Provided constructive feedback while grading 15 assignments and 6 practicums for a class of 300+ students.
- Guided 100+ students in hypothesis testing, correlations, predictive modeling, and assessing statistical significance.
- Led a team of 15 TAs and assisted students for 10+ hours weekly in office hours, maintaining 99% grading accuracy.

**Software Engineer Intern, Nibodh Educare**

*May 2022 – January 2023*

- Crafted a full-stack web portal using HTML, CSS, JavaScript, and the MERN stack, integrating front-end and back-end with object-oriented principles and reusable components – reducing redundant code and saving development effort.
- Boosted system responsiveness by 20% via AWS, microservices, and scalable RESTful APIs, ensuring high availability.
- Drove agile development, using Git for version control and automating testing with Cypress and Jest.
- Liaised between educators and developers, turning teacher feedback into product specs that led to a user-friendly grade tracking module and strong pilot feedback.

## PROJECTS

**NBA Game Outcome Prediction Using Neural Networks**

*October 2024 – December 2024*

- Engineered and optimized PyTorch models to predict NBA outcomes from 25 years of SQL-extracted data, achieving 65% accuracy – a 15% gain over baseline via feature engineering, hyperparameter tuning, and early stopping.

**Distributed Key-Value Store**

*June 2024 – August 2024*

- Developed a distributed key-value store in Java using TCP, UDP, and RMI, with custom architectures supporting get/put/delete operations, 2PC for fault-tolerant transactions, and PAXOS for high availability and consistency.