

Ayush Uday Desai

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Education

Northeastern University <i>Master of Science, Computer Science, GPA: 3.81/4.00</i>	January 2023 – December 2024 <i>Boston, MA</i>
<ul style="list-style-type: none">Relevant Courses: Program Design Paradigm, Machine Learning, Database Management, Algorithms, Web Development, Data Structures, Foundations of Artificial Intelligence, Android Development	
University of Mumbai <i>Bachelor of Engineering, Information Technology, CGPA: 9.10/10</i>	August 2018 – May 2022 <i>Mumbai, MH</i>

Experience

Northeastern University <i>Lead Teaching Assistant, CS 5200</i>	May 2023 – Present <i>Boston, MA</i>
<ul style="list-style-type: none">Managed a team of 5 TAs, mentoring over 100 students to enhance SQL and ER modeling skills.Conducted individual sessions and weekly office hours, resolving over 20 student queries weekly.	
Papa Don't Preach <i>Software Engineer Intern</i>	January 2022 – December 2022 <i>Mumbai, MH</i>
<ul style="list-style-type: none">Expanded the company's scalable e-commerce platform, reducing page load time by 2 seconds by using an efficient caching mechanism and optimized database queries.Architected distributed backend systems on AWS with PostgreSQL, maintaining a 99% uptime.Automated CI/CD and reduced deployment time by 3 hours by using Jenkins, Docker, and GitHub Actions.Integrated the ZXing library into the production Android app to enable QR code scanning for clothing labels, reducing manual input time and improving operational efficiency.	
Bharat Diamond Bourse <i>Machine Learning Engineer Intern</i>	May 2021 – September 2021 <i>Mumbai, MH</i>
<ul style="list-style-type: none">Developed and deployed predictive models in Python with Linear Regression to analyze diamond price trends, reaching 87% accuracy through feature optimization and advanced training techniques.Used scikit-learn and matplotlib for statistical data analysis and visualizations of trends in market price.	

Projects

Text Translation System GitHub <i>Python, Transformer, LSTM, Deep Learning</i>	January 2024 – May 2024
<ul style="list-style-type: none">Created a multilingual text translation system using Transformer and LSTM architectures, achieving 91% accuracy across various language pairs like English-German and French-English.Upgraded the pipeline with hyper-tuned models and attention mechanisms, reducing training time by 30%.	
Image Transformation GitHub <i>Java, Image Processing</i>	September 2023 – December 2023
<ul style="list-style-type: none">Built a Java based image processing app with MVC architecture to handle multiple images and apply advanced manipulation features like flip, blur, sepia, etc.Applied Object Oriented Programming principles to design a modular, maintainable, and scalable codebase, decreasing code duplication by 30%.	
The Novel Society Link <i>MERN Stack, React Native</i>	June 2023 – September 2023
<ul style="list-style-type: none">Designed a community platform for book enthusiasts using the MERN stack, fostering dynamic user engagement.Enhanced backend with Node.js to handle traffic, improving stability and reducing response time by 1 second.	
Candle Stick Chart Pattern Recognition GitHub <i>Python, Django, TensorFlow</i>	January 2021 – May 2022
<ul style="list-style-type: none">Engineered a real-time stock analysis tool using Django, enabling efficient data processing and user interaction.Leveraged TensorFlow models (SVM and CNN) to analyze 10,000 stock patterns daily, optimizing predictions with advanced machine learning techniques.	

Skills

Languages: Python, C++, C, HTML5, CSS, Java, JavaScript, SQL, R
Database: MySQL, MongoDB, PostgreSQL
Frameworks/Tools: TensorFlow, NLTK, pyTorch, Flask, Django, React, Node.JS, Git, Requests, Docker
Cloud: AWS (EC2, S3, Glue, SQS, Lambda, SageMaker, Redshift, Elastic Beanstalk)