Dhruv Belai

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EDUCATION

Northeastern University, *Boston, MA* *September 2023 – May 2025*
Master of Science in Computer Science
Relevant Coursework: Programming Design Paradigm, Algorithms, Database Management Systems, Web Development

Universal College of Engineering, *Mumbai, India* *August 2020 – June 2023*
Bachelor of Engineering in Computer Engineering
Relevant Coursework: Data Structures, Data Science, Big Data Analytics, Natural Language Processing

SKILLS

Languages: Python, Java, R, HTML, CSS, JavaScript
Databases: MySQL, PostgreSQL, SQLite, MongoDB
Applications: Git, Docker, Excel, PowerBI, Tableau, VMWare, Jupyter
Frameworks: Pandas, NumPy, Matplotlib, Seaborn, Keras, Scikit-learn, Transformers, PyTorch, React, NodeJS

WORK EXPERIENCE

Software Engineering Intern *May 2019 – June 2019*
Nibodh Educare, Mumbai, India

- Developed intuitive HMIs using HTML, CSS, React and NodeJS for a student-parent **web application** portal, integrating **front-end** and **back-end** infrastructure into the **live code** of the website, orchestrating seamless functionality.
- Optimized **data pipelines** and retrieval, resulting in a **40% increase** in data retrieval speed and system responsiveness, enhancing **data analytics** efficiency, designing **dashboards** to facilitate informed **decision-making**.
- Championed **agile development** and **CI/CD pipelines**, employing **Git** for version control, ensuring efficient collaboration and **project management**, ensuring **automation** of software deployment process.
- Facilitated **open communication** between stakeholders and the development team, ensuring **smooth deployment** and garnering **positive user feedback**.

PROJECTS

Project Roofs *October 2023 – December 2023*

- Executed **SQL CRUD** operations through optimized **stored procedures**, significantly improving data consistency.
- Employed Pandas for streamlined **data analysis** and Matplotlib for better decision making through **data visualizations**.
- Followed **clean coding** practices, enabling seamless extension of the application's functionalities and **maintainability**.

Handwritten Text Recognition using OCR *November 2022 – April 2023*

- Utilized **Transformers**-based OCR model to store and save handwritten notes into **cloud** using the Google Drive API.
- Achieved **87.3%** text recognition accuracy by **fine tuning** the model and employing **image preprocessing** techniques.
- Enhanced **accessibility** and **modularized** components utilizing Python's googletrans library for **language translation**.
- Authored "***English Handwriting Recognition using Advanced OCR***" in IJRAR (EISSN: 2348 – 1269).

CryptoCast *November 2021 – April 2022*

- Modeled **deep learning** with TensorFlow using **LSTM** algorithm for accurate **time series** forecasting of cryptocurrency.
- Accomplished high accuracy through rigorous **model training** and analysis, providing valuable **market insights**.
- Crafted **user-friendly** GUI with PyQt, enabling seamless access to **dynamic visualizations** powered by Matplotlib.

CERTIFICATIONS

- FreeCodeCamp Machine Learning with Python (TensorFlow) *June 2023*
- IBM Essentials of AI and Cloud Computing *February 2023*
- AWS Academy Data Engineering *January 2023*
- IBM Machine Learning with Python (Scikit-learn) *August 2022*
- AWS Academy Cloud Foundations *March 2022*