

NUPUR ABHIJIT DASHPUTRE

Los Angeles, California 90007 | (213) 994-7674 | dashputr@usc.edu | [linkedin.com/in/nupur-dashputre/](https://www.linkedin.com/in/nupur-dashputre/)

EDUCATION

University of Southern California, Los Angeles, CA

August 2024 – Present

Master of Science in Computer Science – Data Science

- Analysis of Algorithms: Solving problems based on Greedy algorithms, Dynamic Programming, Divide-and-Conquer Techniques, Linear Programming
- Foundations of Artificial Intelligence: Reinforcement Learning, Temporal Reasoning, Bayesian Networks, Machine Learning
- Applied Natural Language Processing: Text classifiers, Sequence Labelling, Syntactic Parsing, Transformers, Deep Learning
- Database Systems: Relational Databases, SQL, NoSQL, ETL, Business Intelligence, Performance Tuning, LLMs, VLMs, RAG

MIT World Peace University, Pune, India

August 2020 – July 2024

Bachelor of Technology in Computer Science Engineering

- Relevant Coursework: Linear Algebra & Differential Calculus, Statistics, Data Structures & Algorithms, Database Management Systems, Machine Learning, Natural Language Processing, Parallel Programming, Project Management, Distributed Computing
- Publications: [IEEE 9th I2CT 2024](#), [Kepes Journal](#), [Medium](#)

EXPERIENCE

Data Analyst Intern, Rolls Royce Power Systems AG, Pune, India

January 2024 – June 2024

- Generated a machine learning model that attempts to predict the life (predictive maintenance) of diesel engine component using sensor-based time-series data obtained using MATLAB software, employed data cleaning techniques and Regression analyses
- Observed requirement of more data for better prediction; presented findings to senior management and associates

Summer Intern, Persistent Systems, Pune, India

June 2023 – August 2023

- Received hands-on training on fundamental concepts of Data Structures, Operating Systems and Database Management Systems
- Completed programming tasks such as implementation of Stack, Queue, Graph and Linked List data structures in Python

SKILLS

- Python, C++, Java, SQL (MySQL, PostgreSQL, Oracle), Javascript, Hadoop, Flask, Machine Learning – Numpy, Matplotlib, Pandas, Seaborn, Scikit-Learn, OpenCV, PyTorch, Tensorflow; Data Analysis, Tableau, Microsoft Office (Excel)

PROJECTS

EchoLens – Empowering Digital Accessibility (HackSC SoCal Tech Week 2024 Hackathon)

November 2024

- Developed a Chrome extension tool for visually impaired individuals, that summarizes the trends presented in image containing graphs/charts on any website, using Llama 3.2 Vision model, Groq API, Google Text-To-Speech library for conversion to audio description
- Tool gave satisfactory results on non-graphical images and can be integrated with existing screen readers for an elevated experience

Intelligent Indoor Navigation System

August 2023 – December 2023

- Designed Machine Learning-based indoor navigation application for visually impaired people, improvised by adding features such as Text-to-Speech conversion and Talkback technologies for announcing obstacles in the way
- Published review paper titled “[Designing a Machine Learning-Based Intelligent Indoor Navigation System for People with Physical Disabilities](#)”

Alzheimer’s Disease Detection

January 2023 – May 2023

- Trained classification models on ADNIMERGE dataset comprising patients’ genetic data and biomarkers from years 2004 to 2012
- Performed Feature Engineering to eliminate irrelevant features, employed Decision Tree, Random Forest, KNN, Naïve Bayes, SVM, Bagging, XGBoost classification algorithms; achieved 94.7% accuracy with XGBoost classifier

Visi-Music: Visual-based Song Recommendation

October 2022 – January 2023

- Designed an interactive interface that takes image as input and suggests a suitable song, different genres being action, comedy, grief, feel-good
- Employed the VGG-16 model for image processing, then performed sentiment analysis on it; integrated with SpotifyAPI

An Interpretation Tool for Shakespearean Dramas

August 2022 – October 2022

- Developed an interpretation and summarization tool that would provide an accurate explanation for phrases/dialogues from William Shakespeare’s dramas, explaining external references if any
- Used techniques such as Bi-directional LSTM, Abstractive Text Summarization and Dependency Parsing