PARTH PARIKH

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EDUCATION

Rajiv Gandhi Institute of Technology, Mumbai *August 2017 - June 2021*
Bachelor in Engineering
Department of Computer Engineering *CGPA - 8.58*

COURSES UNDERTAKEN

Structured Programming Approach, Digital Logic Design and Analysis, Discrete Structures, Data Structures, Analysis of Algorithms, Advanced Algorithms, Operating System, Computer Organization and Architecture, Computer Networks, Database Management System, Theory of Computation

PROJECTS

Popup Encyclopedia *May 2019 - Present*
A browser extension aimed to provide word meanings on double-clicking a word. Designed it to work fully offline with support for word-lemmatization. Optimized it to perform faster than state-of-the-art software like Google Dictionary.

Crossword-Solver *December 2019*
Designed a class to guess clues using databases like Wordnet, Moby's thesaurus and Gensim's glove-wiki-gigaword-100. An implementation based on Z3 Theorem Prover (SMT solver) was developed to position the guesses on the crossword-board.

Movie Recommendation System *September 2019 - November 2019*
Developed a movie recommendation engine using content-based and collaborative filtering approaches with a hybrid recommender system optimizing their recommendations. Implemented machine learning approaches like KNNBaseline and Cosine Similarity. Curated *The Indian Movie Database(TIMDB)*, the largest database available for Indian movies, with over 4500 titles released between 1950 and 2019.

Pizza Delivery Chatbot *March 2019*
Conceptualized and developed a parser with support for universals, generic responses, sentiment analysis, and curse-word detection. Analyzed customer priority using KNN, hand-curated core datasets and added support for various customer-analytics using SQLite.
This project secured an Honourable mention in DBIT hackathon.

Search Engine *July 2018*
Designed a web-crawler using Scrapy, performed word refining using NLTK and indexing using an Inverted Index. Added auto-completion using Tries and *did you mean* feature by analyzing Levenshtein distance between words. Implemented retrieval and error detection in Flask and ranking using Tf-Idf.

MINOR PROJECTS

- Designed a **Branch Target Buffer** for Computer Organization and Arch. Lab. *April 2019*
- Developed a **progressive-web-app/website** to provide news in rural areas. With low request sizes and fast loading time, the site was optimized for low bandwidth connections. *July 2019*
- Developed a feature-rich **URL shortening service** with support for duplicate link verification, auto expiry of URL, custom URLs, and spam detection. Designed a spam detection library using mmh3 and bitarrays. *February 2019*

- Designed a news-aggregator based toolkit in Django which parsed RSS feed, found breaking news from them (both categorically and non categorically), performed summary scraping and retrieved stocks from BSE, NASDAQ, and NSE. *November 2018 - June 2019*
- Created an AI-based Tic-Tac-Toe game using the Minimax algorithm. *February 2018*

TECHNICAL SKILLS

Programming Languages	Proficient in Python, C; Prior experience in Java, Bash, Octave
Libraries	Django, Flask, Scrapy, NLTK, Tkinter, Scikit-learn
Software Skills	MySQL, SQLite, Octave, Markdown, Git, LaTeX, AutoCAD
Web Technologies	Javascript, HTML, CSS