

Dhruv Patel

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EDUCATION

- **University of Southern California – Viterbi School of Engineering** Los Angeles, CA
Master of Science in Computer Science May 2020
- **Dharmsinh Desai Institute of Technology** Nadiad, India
Bachelor of Technology in Computer Engineering; GPA – 9.07/10.0 (Rank: 5/133) May 2018






TECHNICAL SKILLS

- **Languages:** Python, JavaScript, C, C#, Java, HTML, CSS, PHP, SQL, NoSQL, R
- **Technologies:** Django, Laravel, Flask, Node.js, Spring MVC, ASP.NET, JSON, AJAX, Angular 5, REST, D3.js, mongoDB, Firebase, Heroku, AWS, Microsoft Azure, CoreNLP, NumPy, Sklearn, PyTorch

PROFESSIONAL EXPERIENCE

- **Indian Institute of Technology, Bombay** Mumbai, India
Research Intern at Center for Indian Language Technology Dec. 2017 - Apr. 2018
 - Built a RESTful API for "A Wordnet based E-Learning Tool for Language Learning" using Django Framework to resolve issue of Database Synchronization leading to duplicate data in database.
 - Devised a Morphological Analyzer which inspects the internal structure of words to obtain certain features of words such as root word, category, and gender.
 - Performed Lexical Simplification of a sentence under the guidance of Prof. Pushpak Bhattacharyya which involves simplifying complex sentences in the Wordnet in order to educate language learners.

PERSONAL PROJECTS

- **Eduauto**  May 2018 – June 2018
Python, Django, Angular 5, mongoDB, AWS
 - Created multiple Web Services with OAuth 2.0 authentication for inserting, retrieving and deleting contents of the database.
 - Developed the client-side with features such as news feed displaying, record insertion UI, accountancy dashboard and online test simulator.
- **Smart Paraphraser**  Sept. 2017 – Oct. 2017
Python, CoreNLP, PyTorch
 - Built a feature based model to obtain various characteristics of words such as syllable count, etymology, morphemes and n-Gram for word complexity detection.
 - Computed the score between a specific word and its synonyms to detect word usage patterns in English grammar.
 - Achieved a baseline kappa score of 0.498 on trial and 0.204 on test sets.
- **P2P File Transfer**   Mar. 2017 – Apr. 2017
Node.js, Peer.js, webRTC, Heroku
 - Designed a real-time browser-to-browser communication system for transferring files from one device to multiple devices without uploading files to the server.
 - Engineered the solution of asynchronous merging of blobs of same file which resulted in out of sequence data delivery using acknowledgement generation.
- **Restaurant Automation** Sept. 2016 – Nov. 2016
ASP.NET, Microsoft Azure, Stripe
 - Constructed an automated restaurant management system with various features such as table reservation, menu selection, bill payment, memberships, and payment gateway.
- **Minesweeper – The Game**  Dec. 2015 – Jan. 2016
HTML, CSS, P5.js
 - Programmed minesweeper game and developed a version of flood fill algorithm for displaying boxes without mines.

ACTIVITIES & INVOLVEMENTS

- Guided several people in learning JSON, AJAX and XML by producing video tutorial series for specific concepts on GitHub.
- Organized various seminars on Blockchain, and Linux as part of Committee Member of *Computer Society of India*.