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*** — *May 2018*

TECHNICAL SKILLS

- **Languages**: Java, Python, JavaScript, C++, C#, HTML, CSS, PHP, R
- **Web Frameworks and Databases**: Django, Casablanca, Flask, Node.js, Spring MVC, JHipster, ASP.NET, jQuery, Polymer, Angular 5, RxJS, D3.js, MySQL, mongoDB, Redis, Firebase, REST, SOAP, Git
- **Cloud Technologies**: AWS, GCP, Microsoft Azure, Heroku, Docker, Kubernetes, Portworx, Fluentd, Apache Kafka
- **Data Science**: Keras, Pytorch, Caffe, Kaldi ASR, CoreNLP, Numpy, Pandas, Scikit

PROFESSIONAL EXPERIENCE

- **Information Sciences Institute, Marina Del Rey** — Los Angeles, United States
  Research Programmer for MINT Project — *Oct. 2018 - Present*
  - Working on Semantic Web and Model Integration using Process Composition under Prof. Yolanda Gil in the domain of Artificial Intelligence and Knowledge Technologies.
  - Developed a RESTful Web Services in C++ using Casablanca for boosting the data retrieval rate. Decreased latency by 25%.
  - Incorporated Knowledge Graphs describing various ontological relations using Polymer and D3.js.
- **Indian Institute of Technology, Bombay** — Mumbai, India
  Software Engineer Intern at Center for Indian Language Technology — *Dec. 2017 - Apr. 2018*
  - 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. Achieved an F-score of 0.4688.
  - Devised a Morphological Analyzer for Hindi Language using Django Framework which inspects the internal structure of words to obtain certain features of words such as root word, category, and gender.

PERSONAL PROJECTS

- **Aura Player** — *Sept. 2018 – Oct. 2018*
  Node.js, Google Speech to Text, GCP, IBM Watson NLU, Spotify API
  - Created a Mood based music recommendation player which suggests a playlist of songs based on your current mood.
  - Performed Sentiment Analysis on text to compute the score which was fed into the Spotify API to create playlist.
- **Eduauto** — *May 2018 – June 2018*
  Java, Spring, Angular 5, JHipster, RxJS, MySQL, 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, C++, Kaldi ASR
  - Built a feature based model to obtain various characteristics of words such as syllable count, etymology, morphemes and n-Gram for word complexity detection. 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, SendGrid, Heroku, Docker
  - 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.

AWARDS

- Best Design Award in Trojan Hacks '18 a Hackathon sponsored by Google and organized by USC ACM.