ROHAN JAGTAP

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EDUCATION

B.E. Computer Engineering: Sardar Patel Institute of Technology **2020, Mumbai, India**
- CGPA: 8.73 / 10

Class XII, HSC: Kishinchand Chellaram College **2016, Mumbai, India**
- Score: 84.31 %

Class X, SSC: St. Teresa's High School **2014, Mumbai, India**
- Score: 90.40 %

PUBLICATIONS

Healthcare Conversational Chatbot for Medical Diagnosis (Book Chapter) **October 2020**
- Proposed a Hierarchical Recurrent Encoder-Decoder(HRED) based architecture for diagnostic chatbots.
- HRED is responsible for keeping the context of the conversation which proves crucial in the medical domain.
- Jagtap. et. al. (2020). Healthcare Conversational Chatbot for Medical Diagnosis. In Patil, B., & Vohra, M. *Handbook of Research on Engineering, Business, and Healthcare Applications of Data Science and Analytics*. IGI Global. http://doi:10.4018/978-1-7998-3053-5. Webpage: igi-global.com/book/handbook-research-engineering-business-healthcare/239914

An In-depth Walkthrough on Evolution of Neural Machine Translation **April 2020**
- A survey on the recent trends in Neural Machine Translation.
- A comprehensive comparison of the state of the art models in the domain.
- R. Jagtap and D. S. N. Dhage, "An In-depth Walkthrough on Evolution of Neural Machine Translation," arXiv e-prints, p. arXiv:2004.04902, Apr. 2020. Paper Link: arxiv.org/abs/2004.04902

WORK EXPERIENCE

Member of Technical Staff at VMware Inc. **Bengaluru, India**
Full Time **July 2020 - Present**
- Currently working on Microservices in Spring Boot in a team of 12.
- Developed a Database Migration Tool in Ruby for a cross-platform feature migration.

Intern **January 2020 - July 2020**
- Built a Notification Microservice using Spring Boot and Spring Data MongoDB as ORM.

Web Developer at Sardar Patel Technology Business Incubator **Mumbai, India**
Intern **December 2018 - January 2019**
- Developed a Job/Internship Application Portal to facilitate job posting and hiring for the firm. Used the Django Framework.
- Website Link: https://careers.spit.ac.in

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, Ruby, C, C++
- **AI:** Deep Learning, Natural Language Processing, Machine Learning, Reinforcement Learning
- **Frameworks:** Django, Spring Boot, Flask
- **Databases:** MySQL, MongoDB,
- **Web Development:** HTML, CSS, Bootstrap, JavaScript

CERTIFICATIONS

TensorFlow Developer Certificate **June 2020 - June 2023**
- Credential Link: credential.net/c53be2df-3da0-40d1-83f6-d6627fa0ed8b

NPTEL: Reinforcement Learning **October 2019**
- Score: 77/100 (Rank #2 in India)
- Certificate Link: nptel.ac.in/noc/Ecertificate/?q=NPTEL19CS55S41820719191052649

ACHIEVEMENTS

Runner Up, Sangam - ML Hackathon By IIT Madras Alumni Association **August 2019**
- **Problem Statement:** To derive the Air Quality Index (AQI) and gain insights from the collected data; predict AQI in temporal as well as spatial dimensions with visualizations.
- Worked in a team of 2; preprocessed the data and trained two autoregressive models for spatial and temporal predictions.
- Github: github.com/rojagtap/sangam2019

Winner, Smart India Hackathon, 2019 Software Edition **March 2019**

- **Problem Statement:** Leveraging Technology to Improve Customer Experience i.e. to make insurance documents more comprehensive to the people, by Future Generali Insurance.
- **Solution:** An Extractive Text Summarizer.
- Worked in a team of 6; implemented the core summarizer logic in Python using NLTK.
- Github: github.com/rojagtap/voice-over-insurance-protocol

PROJECTS

Caption Generator for Instagram **March 2020 - Present**

- An effort to implement a new multi-modal architecture in comparison with Visual BERT and ViLBERT.
- Github: github.com/rojagtap/insta_caption_generator [Unmaintained]

Abstractive Text Summarizer (Transformers) **May 2020**

- Trained a model that summarizes paragraphs of text into 1-2 liners; hence, summarizing news articles.
- Implemented the Transformer model from the paper, “Attention is all you need”
- Github: github.com/rojagtap/abstractive_summarizer
- Blog (Theory): towardsdatascience.com/transformers-explained-65454c0f3fa7
- Blog (Implementation): medium.com/swlh/abstractive-text-summarization-using-transformers-3e774cc42453

Skeleton to Picture Generator (pix2pix) **March 2020**

- Trained a model that generates completed images from wireframes (e.g. generating face images from landmarks).
- Implemented the pix2pix model as suggested in the paper "Image-to-Image Translation with Conditional Adversarial Networks"
- Github: github.com/rojagtap/pix2pix

Random Image Generator (DCGAN) **March 2020**

- Trained a model to generate images from a particular distribution from a junk distribution.
- Implemented DCGANs as proposed in "Unsupervised Representation Learning with Deep Convolutional Generative Adversarial Networks".
- Github: github.com/rojagtap/DCGAN
- Blog (GANs): towardsdatascience.com/a-comprehensive-guide-to-generative-adversarial-networks-gans-fcfe65d1cfe4
- Blog (DCGAN): towardsdatascience.com/implementing-deep-convolutional-generative-adversarial-networks-dcgan-573df2b63c0d

Text Generator (Autoregressive Language Model) **February 2020**

- Trained an RNN-based Language Model to learn patterns in a given text corpus.
- Github (TensorFlow): github.com/rojagtap/eminem_lyrics_generator
- Github (NumPy from Scratch): github.com/rojagtap/text_predictor_using_rnn
- Blog: towardsdatascience.com/generating-eminem-lyrics-using-neural-networks-96e7f9c45e8a