Keval Nagda

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Education

September 2021 – March 2023 GPA: 3.5/4.0
University of California, Santa Cruz / Master of Science, Computer Science and Engineering.

August 2016 – May 2020 GPA: 8.77/10.0
University of Mumbai / Bachelor of Engineering, Computer Science.

Work Experience

Qure.ai, AI Engineer October 2020 – June 2021

- Designing and dockerization of DICOM based slices annotation portal and 3Dslicer tool reducing the deployment time, number of AWS instances and portal management by 80%. Development of a web portal and integration with the 3Dslicer tool for radiologists to easily manage CT/MRI slices of patients.
- Development and deployment of POCs (Proof of Concepts) and PWAs (Progressive Web Apps) for the qRemote product to implement the idea of telehealth for the hospitals and clinics.
- Deploy and manage Zammad (an open-source customer support/ticketing system) to automate ticket creation using tag-based triggers on customer success emails resulting in ease of ticket management.

MortgageKart, Software Engineer August 2020 – October 2020

- Testing and implementing feature improvements for the mortgage calculation in the product. Code refactoring and optimization for the backend-headless worker node which reduced the latency of the mortgage calculation results by 11%.
- Design and development of the features, API specifications and the workflow across the product to improve the efficiency by 3%.

Sensegrass, ML & Development Intern June 2019 – August 2019

- Automation of fruit phenotyping for crop and grain disease prediction using image processing and computer vision in Python and Keras.
- Experimentation with various thresholding techniques to grade and sort fruits based on disease and freshness boosting quotient estimation by 46%.

Jatana, NLP Research Intern October 2018 – March 2019

- Worked on hyperparameter optimization of trained language models using Talos and developed scripts to convert TF files to TFLite by performing weight quantization and buffer flattening methods to compress the model size by 7%.
- Research and implementation of parallel CNN architectures using TensorFlow and Keras for email summarization and classification by increasing the accuracy from 66% to 87%.

Publications

Keval Nagda, Anirudh Mukherjee, Milind Shah, Pratik Mulchandani and Lakshmi Kurup. "Ascent of Pre-Trained SOTA Language Models" in Springer, ICACTA 2020 (ISSN: 2524-7565).

A comparative study of state-of-the-art language models like ULMFit, ELMo, BERT, Transformer-XL, XLNet and OpenAI's GPT-2 on standard NLP benchmarking tasks such as sentence paraphrasing, question answering, etc.

Projects

Hierarchical Story Generation – Flask, TensorFlow, Bootstrap May 2020

Implemented a theme based short story generation system where a user inputs a prompt and a theme for the story. Keywords from the user input are extracted fed into a seq2seq model in a hierarchical manner. The result generated is a well-structured, coherent, semantically correct story that sticks to their narrative.

InveShastra – XAMPP, Metabase, Kibana March 2019

Developed a FinTech application that handles investment banking, customized tax budgeting and portfolio management. The market forecasting is done using the ARMIA model which helps in short-term prediction. The prediction is also affected by the sentiment analysis performed on twitter data using the IBM's Watson Analytics. This helps a user to make quick and smart financial decisions based on the globally ongoing trends.

HealthChain – Solidity, Remix, Ganache, ReactJS January 2019

A blockchain based application to maintain and collaborate medical history data of a patient from various hospitals, doctors, clinics, chemists and insurance companies. Data for every patient is stored in a contract (written in Solidity) inside the blockchain created using Ganache, so there is a complete transparency which solves the problem of false insurance claims, bills and records tampering and spoofing.

Technical Skills

Programming Languages: C/C++, Python, JavaScript **Databases:** MySQL, MongoDB.
Frameworks/Tools: Django-REST Framework, Elasticsearch, Kibana, ReactJS, NodeJS, Keras, Git.

Achievements and Activities

- **Mentor** at the DJ Unicode club, where students collaborate to create projects with open-source software development standards.
- **Winner** at **Codeshastra 4.0 Hackathon**, developed a web-based call center application to perform analysis on calls and create an incentive-based scoring system for all the employees.
- **Winner** at **Hack-N-Code Hackathon 1.0,** built a PHP-based application to reduce tax frauds where invoices uploaded by the citizens is put into blockchain smart contracts for income tax officials to analyze the data.