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RAJAT PATEL

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EMPLOYMENT

Data Scientist **Interos Inc** **January 2020 - Present**

Machine Learning Research Team

- Built an Image Search Engine with active learning component to detect logos of partners and subsidiaries available on company webpages. Implemented a web application using Django, celery and postgres – database with front-end written in bootstrap, jQuery, and JavaScript to build interactive interface for the search engine
- Developed and implemented an entity linking algorithm using transformers (BERT) to enhance the linking capabilities by 30% in the relational knowledge base
- Implemented event-based classifiers to capture events in the wild along with entity extraction models

Data Scientist Intern **Interos Inc** **June 2019 – August 2019**

- Built an intelligent product crawler tool that uses both unsupervised and supervised machine learning to learn the HTML structure of the webpage and identify the product names with 75% accuracy
- Created a pipeline to integrate the product crawler tool with the knowledge base to enhance mapping timelines by 85%

Software Design Engineer, Intern **Larsen and Toubro Infotech** **January 2015 – July 2017**

(Infrastructure Management Services – (IMS))

- Built python libraries for robotic process automation to reduce manual work effort on client projects by 80%
- Developed shell script to schedule and automate daily monitoring active within client's tech infrastructure to reduce efforts on OS & DB administration
- Developed a Proof of Concept on distributed SAP data migration technique as a collaborative effort with SAP Center of Excellence team in the IMS business unit

TECHNICAL SKILLS

Programming Languages:	Python, JavaScript, Go, Shell Scripting, SQL,
Frameworks & Technologies:	TensorFlow, PyTorch, NumPy, SciPy, Scikit-learn, Pandas, Scrapy, Flask, Django
Tools & Database:	Jupyter, MongoDB, MySQL, Postgres, AWS Sagemaker, ML Flow, Kubernetes

EDUCATION

Baltimore, MD **University of Maryland Baltimore County** **August 2017 – December 2019**

M.S. in Computer Science

Coursework: Design & Analysis of Algorithms, Advanced operating systems, Advanced Computer Architecture, Machine Learning, Natural Language Processing, Information Retrieval, Data Science

Kolhapur, India **Shivaji University** **August 2010 – May 2014**

B.E. in Electronics and Telecommunication Engineering

Coursework: Data structure and Algorithms, Digital Design, Microcontroller, Image Processing, Embedded Systems

PROJECTS

- **Joint Learning knowledge graph embedding, fine grain entity type and Language models:** The deep learning framework model learned real-valued representations for structured facts from a knowledge graph in form of embeddings. The multi-task learning framework helped improved performance on downstream NLP applications
- **Image-Rel Predictor:** Image relationship finder is meta learning algorithm to find relationship of entities detected within the image using representation learning
- **PPGNET: Massive Transfusion Predictor for trauma patients:** PPGNet is a deep learning model which can assist in automatic feature extraction from first 15 mins of PPG records of trauma patients to detect the need of transfusion within first 24 hrs.