

VIVEK IYER

IRE Researcher @ IIIT-H | Google Summer of Code 2018

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RESEARCH EXPERIENCE

IRE Researcher

Software Engineering Research Centre, IIIT-H

📅 August 2018 – Present 📍 Hyderabad, India

- **Ontology Enrichment using LSTMs**: A Deep Learning solution to Ontology Enrichment. **Bidirectional LSTMs** are used to semantically understand sentence structure in order to extract relevant concepts and relationships.
Submitted to **SIGKDD 2020**
- **Ontology Evaluator**: An ontology quality evaluation tool that uses **Machine Learning** (Support Vector regression) to score and rank ontologies by syntactic and semantic quality
- **Ontology Visualization & Validation**: Crowdsourced ontology validation by using ontologist's **Twitter credibility** as quality control
Submitted to **SRC 2020**
- **Ontology Enrichment Survey**: A survey of the four most seminal papers in Ontology Enrichment (Guided Clustering, FCA, C-Pankow and Word2Vec), containing implementation, results and analysis.
Published at **ICON 2019**

WORK EXPERIENCE

GSoC Developer @ **XWiki**

Google Summer of Code

📅 May 2018 - August 2018 📍 Remote

- Added language support for **Velocity Template Language** in **Google Blockly**
- Created a new Blockly toolbox to generate Velocity code for common XWiki scripting actions and packaged and shipped it as an **XWiki extension**
- Worked in a remote organization, had regular weekly meetings, interfaced with team members, followed coding best practices and documented all my work for the entire 3 month period

ML/NLP Research Intern

ZingHR

📅 June 2017 – August 2017 📍 Mumbai, India

- Engineered, developed and packaged a **resume parser** which used **Machine Learning** to recognize different sections of the resume and extract relevant fields.
- Contributed significantly to the development of the ZingHR Mobile App, built using **Backbone.JS** and **Marionette.JS** frameworks
- Coordinated with large number of team members to develop the application and interfaced extensively with **Microsoft** employees who had a stake in the development of the **resume parser** and were overseeing the entire project

EDUCATION

B.Tech. + MS by Research in CSE

IIIT Hyderabad

📅 2016 - Present 📍 Hyderabad, India

Currently enrolled in a dual degree B.Tech + MS by Research (IRE) course at IIIT-H

Expected Graduation Year: 2021

RESEARCH INTERESTS

Ontologies Knowledge Graphs IRE
Deep Learning Machine Learning
Semantic Web Text Mining NLP

PROJECTS

Wikipedia Search

- A mini **search engine** that allows the user to search for articles on **Wikipedia**.

FAQ Chatbot

- An FAQ **chatbot** built using the **Encoder-Decoder** with **Luong Attention** model and trained on the **Microsoft Frames** dataset.
- Won **first prize** at the **IIIT-H Walmart Hackathon 2019**.

Question Generation System

- A Question Generation system that uses the **Stanford CoreNLP Parser** to parse factoids from Wiki articles into questions
- Outputs a list of questions ranked by syntactic and semantic relevance

Wiki Article Generator

- Generates Wikipedia articles in Hindi from their corresponding pages in Wikidata

TECH SKILLS

C C++ PHP Matlab Python
C# Javascript Tensorflow Keras
Pytorch CUDA NLTK bash

RELEVANT COURSES

Artificial Intelligence NLP Applications
Statistical Methods in AI NLP SSAD
Probability & Statistics Calculus IRE