Veera Raghavendra Chikka

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Research Interests

Machine Learning, Deep Learning, Natural Language Processing, Health Informatics, Data Mining, and Data Visualization.

Education

PhD in CSE
International Institute of Information Technology Hyderabad (CGPA: 8.38) January 2014 – present.

B.Tech in CSE
B V Raju Institute of Technology, Hyderabad. (Percentage: 77.8%) Jul 2008 – Apr 2012.

XII Intermediate Education, MPC
Guntur Vikas Junior College, Hyderabad (Percentage: 95.8%) Jun 2006 – Mar 2008.

Work Experience

Research Assistant,
International Institute of Information Technology Hyderabad January 2014 – June 2017.
I have worked on yearly projects funded by Hitachi R&D, Bangalore on "Statistical Natural Language Processing: Information Extraction from Clinical Text".

Software Engineer,
SETU Software Systems Pvt. Ltd, Hyderabad. June 2012 – January 2014.
I worked on various projects such as Concept Extractor, Enterprise Search and Social media analytics tool (newsplus.com).

Software Engineer Intern,
SETU Software Systems Pvt. Ltd, Hyderabad. January 2012 – May 2012.
I worked on natural language processing project, called "Automatic question generator", which was developed as part of "MyDrona" product.

Selected Publications

- **Veera Raghavendra Chikka**, Kamalakar Karlapalem
  WIE2WS: Workflow Instance Extraction from Discharge Summaries and Conformance to Workflow Specification from Treatment plan. Journal of Biomedical Informatics 2018 **[Under review]**
- **Veera Raghavendra Chikka**, Kamalakar Karlapalem
  A hybrid deep learning approach for medical relation extraction. KDD 2018 Workshop on Machine Learning for Medicine and Healthcare 2018
- **Veera Raghavendra Chikka**
  CDE-IIITH at SemEval-2016 Task 12: Extraction of Temporal Information from Clinical documents using Machine Learning techniques. SemEval@NAACL-HLT 2016: 1237-1240
- **Veera Raghavendra Chikka**, Nestor Mariyasagayam, Yoshiki Niwa, Kamalakar Karlapalem.
  Information Extraction from Clinical Documents: Towards Disease/Disorder Template Filling. at 6th International Conference of the CLEF Association, 2015: 389-401
- Mihir Shekhar, **Veera Raghavendra Chikka**, Lini Thomas, Sunil Mandhan, Kamalakar Karlapalem.
  Identifying Medical Terms Related to Specific Diseases. to appear in ICDM 2015 workshop on Biological Data Mining and its Applications in Healthcare (BioDM), 2015.
- Nishikant Johri, Yoshiki Niwa, **Veera Raghavendra Chikka**
  Optimizing Apache cTAKES for Disease/Disorder Template Filling: Team HITACHI in the ShARe/CLEF 2014 eHealth Evaluation Lab. at CLEF (Working Notes) 2014: 111-123
- P. Yashaswi, Yarrabelly Navya, **Veera Raghavendra Chikka**.
  Regular and unusual data visualization. at Visual Analytics Science and Technology (VAST), 2014 IEEE Conference: 369-370

Research Projects

Statistical Natural Language Processing: Information Extraction from Clinical Text
This project focuses on clinical text mining in which we extract medical entities and disease entities for various diseases from patients de-identified discharge summaries. This project is funded by Hitachi R& D Labs Pvt Ltd, India.
Technologies: Deep Learning, CRF++, Structural SVM, Apache cTakes, Python.

Automated Question Generator
The aim of this project is to build a tool which generates the questions automatically from the provided text. This project is done as an Intern at SETU. I have played a vital role in the research work and implementation of the architecture.
Technologies: Java, NLP tools.

Concept Extractor
This task focuses on extracting the concepts like date, time, currency, units and conversion within the measures, from free text. I did major part of designing architecture and coding in this project.
Technologies: Java, Lucene.

Social media analytics tool
Veooz.com is a social media search and analytics tool of SETU software systems. I had worked on the veooz-core module which does the analytics over the social media posts.
Technologies: Java, Hadoop, HBase.

Course Projects

Finding Influencers in twitter
The aim of the project was to develop a system that can find the influncers in the social media network. We have used twitter data for this project. The data is stored in lucene indices for easy retrieval and computed the influencers using tweet and retweet information. I have done the major part of designing and coding of the system.
Technologies: Java, Lucene.

Event Detection from twitter and news articles
The aim of the project was to find named entities from tweets and group frequently occuring entities that describe the event. We find the overlap of these events in twitter with news feed over the same period of time.
Technologies: Java, stanford-ner tool, CMU-NER, Lucene.

Skill Set

Machine Learning libraries:	Scikit-Learn, PyTorch, Keras, Tensorflow
Biomedical specific tools/resources:	Apache cTAKES, Metamap, UMLS, MIMIC III
Operating Systems:	GNU/Linux, Windows
Programming Languages:	Python, Java (J2SE), C, C++
Web Technologies:	HTML, CSS, Javascript, D3.js, Django Python
Database Technologies:	MySql, HBase
Tools/Libraries/Frameworks:	Nutch Lucene, Hadoop, GIT, Ant, Maven, Apache commons, Redis

Activities

- Secured SECOND position in AI Hackathon 2017 hosted by Microsoft Garage India.
- Secured FIRST position in CLEF eHealth 2014 conference "Task 2: Information extraction from Clinical Text: Disease/Disorder Template Filling".
- Attended SUMMER SCHOOL ON DEEP LEARNING 2016 at CVIT, IIIT Hyderabad.
- Participated in Microsoft Research India Summer School 2015 on Machine Learning in Bengaluru, India.
- Volunteered at CLEF eHealth 2014 (Sheffield, UK) and COMAD 2015 (Hyderabad, India) conferences.
- Participated in 24hrs Microsoft Hackathon: code.fun.do 2015 held at IIIT Hyderabad.

Conference Visits

CLEF-2014, COMAD-2015, VLDB 2016, COMAD-2018 and KDD 2018.

References

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