Kshitij Soni

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Academic Qualifications

Bachelor of Technology, Indian Institute of Petroleum and Energy Visakhapatnam   **2019 - Ongoing**
- Major: *Petroleum Engineering*   Current CGPA (after 3 semesters) : ***7.91 / 10***

**Due to COVID 19 pandemic laboratory classes are suspended and CGPA is calculated excluding laboratory credits. Hence it is not the final CGPA.

- **Research Interests :** Advanced Material Processing, Energy Systems, Nano-Technology, Computational Solid Mechanics, Condensed Matter and Material Science

Publications

ADTrap - Adverse Drug Reaction Classification using NLP Tools and Deep Learning Methods
Indian Research Journal on Advanced Technologies. *Volume 1 Issue 1*, August 2020
Kshitij Soni, Ritika Saxena
- Explored the extent to which the ADR assertive text segments can be classified from text based data sources particularly social media sources and structured datasets.
- Investigated different Neural Network Architectures for ADR classification. Export NLP techniques to extract informative and portable features from text coming from different sources.
- Investigated the performance of supervised classification approaches from the data from social media to from other more structured and unstructured sources.

Academic Achievements

- Secured **International Rank 499** in the finals of 16th- SOF Cyber Olympiads (2017).
- Secured **Zonal Rank 15th** in the Zonal Computer Olympiad (2017) organised by Indian Association for Research in Computing Science.
- Recipient of Bhilai Steel Plant Excellence Award for securing 1st position in AISSCE 2018 among all BSP schools.

Research and Professional Experiences

Capsta Group of Companies | *Founder, Chairman and Managing Director*   Nov 2016 - Ongoing
Capsta Group of Companies is the upcoming Indian national conglomerate headquartered in Bilaspur, Chhattisgarh India. The companies are Capsta Private Limited (CIN- U72900CT2021PTC011380); Medihost India Private Limited (U24100CT2021PTC011447).
Founder, Publisher and Chairman - Indian Research Journal on Advanced Technologies (ISSN: 2582-8207).

Indian Institute of Technology Kanpur| *Summer Research Intern*   Apr 2020 - June 2020
Learned and applied machine learning and data science techniques in real world environments. Completed a research project titled - " *ADTrap- Adverse Drug Reaction classification using NLP tools and Deep Learning Methods.*" The concepts learned during the internship are - Data Mining, Storytelling with Data, Statistics for Data Science, Advanced Statistical Techniques, Advanced Machine Learning and Deep Learning, Computer Vision Toolbox, Natural Language Processing Toolbox, Miscellaneous Applications Toolbox, Deploying AI Models to Production. Secured Excellent Grade (Ex) for the project *"ADTrap"*. Also secured A grade in all the quizzes and examinations conducted during the period of internship.

Expertshub | *Program Director and Head of Products*   Dec 2019 - Apr 2020
Supervised the Entrepreneurship Technology Outreach Program and Global Innovation Challenge 2020 organised by Expertshub in collaboration with Solaris and Saksham- Ecell IIM Udaipur. Guiding colleges across Andhra Pradesh & Telangana and Chhattisgarh regions to develop Innovation and Incubation Centres.

Research Projects

Undergraduate Research Project | *Mentor: Asst. Prof. Ranjan Pramanik*   Sept 2020 - Ongoing
Optimization of tool wear and tear using Digital Image Processing
The machine vision system can give an exhaustive picture of the wear and tear zone and thus can indicate the severity more efficiently. The measurement of average tool wear and tear with the present vision system will be expected to be in close agreement with that with the digital microscope. The same program may be used for an online machine system if some additional features are included like edge Detection algorithm, reduction of image noises and orientation of the tool.

Startup Project   Apr 2020 - Aug 2020
The main purpose of launching our system is to remove the existing flaws in the existing system of conducting online examinations. It can be used by educational institutions to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves a lot of time but also gives faster results. Moreover there is no restriction that examiner or invigilator has to be present while taking the test.

Internship Research Project | *Mentor: Prof. Laxmidhar Behera*   Apr 2020 - Jun 2020
ADTrap
Intent was to explore the extent to which the ADR assertive text segments can be classified from text based data sources particularly social media sources and structured datasets. Investigated different Neural Network Architectures for ADR classification. Export NLP techniques to extract informative and portable features from text coming from different sources. Investigated the performance of supervised classification approaches from the data from social media to from other more structured and unstructured sources.

Undergraduate Research Project | *Mentor: Prof. C V Rao*   Dec 2019 - Mar 2020
Advanced Speech Recognition System
The approach was a well optimized RNN training system that uses multiple GPUs as well as a set of data synthesis techniques that allows us to efficiently obtain a large amount of varied data for training. The system does not need hand design equipment to model background noise, reverberation, or speakers, vibration but instead directly learns a function that is robust to such efforts.

Conferences Attended

ReOPEN 2020 - Research Opportunities in Petroleum Energy and Natural Gas. *IIPE Vizag, 24th Feb 2020 - 27th Feb 2020*

Technical Skills

Programming	C, CPP, Python, R, Dart, MATLAB
Web Development	HTML5/CSS, JS, Node.js, Django
Database	SQL, Pig
Software Packages	Hadoop,Solidworks, Flutter, Firebase,Google Cloud Platform, Microsoft Visual Studio

Industry Skills

Marketing, Finance, Sales, Business Growth, Team Leadership, Vision and Execution

Extracurriculars

- Regular participant of Topcoder, Hackerank and Codechef contests.
- Recipient of BSP SSS X Excellence Award 2017 for designing working prototype of Scanning Tunnelling Microscope.
- Recipient of BSP SSS X Gaurav Memorial Award 2018 for outstanding contribution in Physics during secondary school and senior secondary school education.

- Editor at Newsletter and Magazine Club of IIPE Vizag.
- Member of the organizing committee of a four day international workshop - " Research Opportunities in Petroleum Energy and Natural Gas (ReOPEN) - 2020" organised by IIPE Vizag from 24th February 2020 to 27th February 2020.
- Participation in Sports Fest of IIPE Vizag during freshman year.

Referees

Assistant Professor R Ramunaidu
Department of Humanities and Science
IIPE Vizag, Visakhapatnam, India
Email: ramu.math@iipe.ac.in

Assistant Professor Ranjan Pramanik
Department of Petroleum Engineering
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