EDUCATION

Indian Institute of Petroleum and Energy

August 2019 – Present

B.Tech in Petroleum Engineering, GPA: 8.07/10.00

PUBLICATIONS

[1] **K. Soni**, R. Saxena, "Deep learning for detection of Diabetic Eye Retinopathy", *Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence*

[2] **K. Soni**, R. Saxena, "BRAINNET: Automatic brain tumor detection and segmentation", *Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence*

[3] **K. Soni**, "Debt Economies of Indian Unicorns and their impact on growing digitization in India", Manuscript is processing.

INVITED TALKS

[1] Making smart phone selfies into powerful diagnostic tools K J Somaiya College of Engineering Mumbai, Feb 2021.

AWADRS & HONORS

Silver Medal with Rank 36/226 - Google Smartphone Decimetre Challenge 2022 (Kaggle) Silver Medal with Rank 49/751 - American Express – Default Prediction (Kaggle) Rank 269/466 – Google AI4Code: Understand code in Python Notebooks (Kaggle) Rank 236/13825 – Titanic Machine Learning from Disaster (Kaggle)

Rank 65/973 – Natural Language Processing with Disaster Tweets (Kaggle)

CFA Student Access Scholarship, 2021

Udacity AWS Machine Learning Scholarship, 2021

ICSI Foundation, 2021

Udacity Facebook PyTorch Scholarship, 2020

RESEARCH EXPERIENCE

Google Summer of Code 2022

May 2022- Sept 2022

Genome Assembly and Annotation, European Bioinformatics Center Working on extracting data from tables and figures in the scholarly articles.

Indian Institute of Petroleum and Energy Visakhapatnam Sept 2020 - Mar 2022 *Undergraduate Researcher, Mentor – Asst. Prof. Dr. Ranjan Pramanik*

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.

Indian Institute of Technology Kanpur

Apr 2020 – Jun 2020

Summer Research Intern, Mentor – Prof. Dr. Laxmidhar Behera

Investigate the performance of supervised classification approaches on data from social media to data from other more structured and unstructured sources for Adverse Drug Reaction Classification.

INDUSTRY EXPERIENCE

Capsta Private Limited

Mar 2021 – Feb 2022

Co-founder

Capsta was actively engaged in managing clients to generate returns using machine learning algorithms on their securities and assets. Capsta generated more than 22% annual returns from the securities and capital markets and more than 40% returns annually from the crypto markets.

Indian Research Journal on Advanced Technologies

Jul 2020 - Present

Co-founder & Principal Researcher

Indian Research Journal on Advanced Technologies aims to disseminate original, scientific, theoretical or applied research in the field of Engineering and allied fields. It provides a platform to academicians, students, experts and other professionals to share their work

across the world with us. We aim to fill the significant gap between the practical and theoretical practice in the engineering industry by promoting the publication of original ideas, which are novel and relevant to the industry.

Expertshub Innovation Education Foundation

Dec 2019 - Apr 2020

Program Manager Intern

Supervised the Entrepreneurship Technology Outreach Program and Global Innovation Challenge 2020 organized 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.

TECHNICAL SKILLS

Coursework:

Computer Science: Data Structures, Algorithms, Operating Systems, Quantum Computing, Computer Vision, Image Manipulation, Natural Language Processing, Algorithmic Human-Robot Interaction, Information Theory, Sketching Algorithm, Approximation Algorithms for Partition Functions

Probability and Statistics: Probability and Random Process, Optimization, Theoretical Statistics, High-Dimensional Statistics, Statistics Learning Theory

Linguistics: Minimalist Syntax, Lexical Semantics, Formal Semantics

Math: Real Analysis, Abstract Algebra, Transformation Calculus, Linear Algebra, Partial Differential Equations, Vector Algebra

Languages: Python, C, C++, MATLAB. SQL

OS: Windows, Linux

Libraries/Frameworks: Keras, TF, NLTK, NumPy, Pandas, Matplotlib, SciPy, Scikit Learn, Open CV, PyTorch, Tkinter, Flask, Django, Fast API

Platforms: AWS, Azure, Hadoop, Tableau, MongoDB, Power BI

Development: MERN Stack, Sanity, HTML5/CSS, Kubernetes, Poetry, Dask, RAPIDS

COMMUNITY SERVICE Campus Head – Startup Development, E Cell2020,2021,2022Lead, GDSC IIPE Visakhapatnam2021,2022Beta Microsoft Learn Student Ambassador2021,2022Editor, Newsletter IIPE Visakhapatnam2019,2020Technical Lead, Re-OPEN 20202020Member, Technical Committee2019,2020