

HEMANT CHANDAK

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EDUCATION

Manipal University Jaipur

July 2020 – May 2024

Bachelor of Technology in Computer and Communication Engineering

Rajasthan, India

- Minor in Computational Intelligence
- GPA: 8.59/10

RELEVANT COURSEWORK UNDERTAKEN

- **Mathematics:** Linear Algebra, Basic Calculus, Discrete Maths, Probability Theory
- **Computer Science:** Data Structures, DDCA, OOPs, RDBMS, Operating Systems, Design and Analysis of Algorithms, Automata Theory, Cloud Computing, Blockchain
- **Networking:** Data Communication, Computer Networks, Wireless Communications
- **Machine Learning:** AI & ML, Data Science, Soft Computing, Computer Vision, NLP, Deep Learning, Big Data Analytics

EXPERIENCE

Research Assistant at Manipal University Jaipur

February 2023 - *Present*

Advisor : Dr Dinesh Kumar Saini

Jaipur, India

- *Review Article for Renewable and Sustainable Energy Reviews [I.F - 15.9]
- *Research Article for Alexandria Engineering Journal [I.F - 6]

ML Intern at Indo Latin American Chamber of Commerce

September 2023 - October 2023

Recognized by Ministry of External Affairs & MOC, Govt. of India

New Delhi, India

- **Implemented** automated NLP systems for feedback analysis, **improving** response processing time by **30%** and enabling the organization to address member concerns promptly.
- **Developed** churn prediction models, strategically **reducing** member churn by **18%** through targeted retention strategies and personalized incentives for at-risk members.

Software Developer Intern at UrJobMart

May 2023 - July 2023

SourceEase HR Services Private Limited

New Delhi, India

- **Spearheaded** the implementation of automated testing practices, resulting in a **9% reduction** in critical bugs reported and fortifying the platform's robustness through meticulous testing.
- **Collaborated** closely with the development team, effectively communicating and coordinating efforts to **optimize** the platform's scalability and **enhance** system responsiveness by **13%** under diverse load conditions.

Research Intern at IIIT - Hyderabad [iHub Data]

May 2022 – August 2022

Topic: Bioinformatics-Driven Machine Learning for Drug Target Prediction

Hyderabad, India

- **Executed** regression models and DL architectures, to develop a highly accurate predictive model with **92.6%** precision in forecasting small molecule binding affinity with the target protein exhibiting **94.8%** accuracy in prediction.

PUBLICATIONS

- **Chandak, H.**, Saini, D. (2023) From Sunlight to Sustainability: Investigating Challenges and Strategies in Solar Energy Generation, Transmission, and Storage for Sustainable Power Systems, *Renewable and Sustainable Energy Reviews* **I.F:15.9** To be submitted.
- Sinhal, M., **Chandak, H.** (2023) Time Series Prediction of Google's Stock Prices: A Deep Learning Paradigm, *Prepared*.
- **Chandak, H.**, Dhaka, VS. (2023) Synergistic NeuroMRI Segmentation: Integrating K-means Optimization and EHO Algorithm for Precision, *Prepared*.
- **Chandak, H.**, Saini, D. (2023) VBAD Framework: Mathematical Modeling of Cybersecurity in Cloud, Fog, and Edge Computing Environments, *In Preparation*.

PROJECTS

Graph Neural Networks for Drug Repurposing

Aug '23-Oct '23

Guide: Prof VS Dhaka

- Proposed an innovative, incremental learning methodology that demonstrated exceptional outcomes (**AUCROC: 0.92**), surpassing alternative node type-agnostic approaches.

Analysis of Deep Learning Methods for Short-Term Solar Power Forecasting

Jan '23 - Mar '23

Guide: Prof Dinesh Kumar Saini

- Investigated the effect of different hyperparameters and network architectures on the accuracy and generalization performance of deep learning models for solar power forecasting.
- Accuracy – Linear Regression : 97.38% ; kNN : 86% ; Decision Tree : 96.87% ; Random Forest : 98.89%**

TECHNICAL SKILLS

Programming Languages

Python, Java, C/C++, JavaScript, R, Scala, Ruby

Frameworks and Libraries

TensorFlow, PyTorch, Scikit-Learn, Keras, Pandas, NumPy, Django/Flask, React.js/Angular/Vue.js

Tools and Technologies

Git, Docker, Kubernetes, Jupyter Notebooks, SQL/NoSQL Databases, Hadoop, Apache Kafka, Tableau/Power BI, LaTeX, CI/CD Tools

OTHER RELEVANT COURSEWORK

- TensorFlow Developer **Professional Certificate**(4 Courses) DeepLearning.AI
- Generative Adversarial Networks **Specialization**(3 Courses) DeepLearning.AI
- Web3 and Blockchain in Global Commerce **Specialization**(4 courses) INSEAD
- Hands on IoT **Specialization** (4 courses) University of Illinois at Urbana-Champaign
- Blockchain **Specialization** (4 courses) University at Buffalo
- Machine Learning for all University of London
- AI for everyone DeepLearning.AI
- Introduction to Computer Vision and Image Processing IBM
- Introduction to Big Data with Spark and Hadoop IBM
- Linux Fundamentals LearnQuest
- Marketing Analytics Foundation Meta
- Finance for Non-Finance Professionals Rice University
- Algorithms on Graph University of California San Diego
- Asymmetric Cryptography and Key Management University of Colorado System
- Ordered Data Structures University of Illinois at Urbana-Champaign
- Python for Everybody **Specialization** (4 Courses) University of Michigan

AWARDS

- Recipient of **SMMCT Scholarship** worth **INR 2,50,000** 2022
- Participated in LIMIT, organized by research scholars in Indian Statistical Institute, Bangalore 2020
- All India Rank 439** out of 300000 students appearing in VITEEE, India 2018
- Offered **Scholarship** by VIT, India through reduced fees worth **INR 1.4 million** 2018
- Represented** School in 14th All Bengal SpellInc Competition 2016

PORS AND EXTRACURRICULAR ACTIVITIES

- Teacher** [Science, Computer and English], Howrah Navjyoti NGO (Oct.2019 - Present)
- Volunteer**, GirlUp Menstrual Awareness Community Service (30th October, 2023)
- Organizer** : Thrive Code, Hello World, Tailored DSA Workshops (Sept.2023 - Oct.2023)
- Organizing Committee**, 4th International Conference on Smart Systems (26th - 27th October, 2023)
- Technical Head**, GlobalGrad, MUJ (Jan.2022 - Sept.2023)
- Head of Finance**, RANDOMIZE, Technical Club, MUJ (Sept.2022 - Aug.2023)
- Disciplinary Committee**, Events, MUJ (Sept. 2022 -May. 2023)
- Student Placement Coodinator**, MUJ (Aug. 2022 - Jan. 2023)
- Volunteer**, Academy of Indore Marathoners (3rd Feb,2019 & 2nd Feb,2020)