HARNAIN KOUR

ASSISTANT PROFESSOR

DETAILS

Central University of Jammu, India,
Jammu, 181143
9103631271
harnain.cse@cujammu.ac.in

LINKS

LinkedIn Google Scholar

-

SKILLS

Knowledge of ML Frameworks (TensorFlow, PyTorch, and Keras)

Proficient in Python

IDE experience (Jupter Notebook, Spyder, Pycharm and Visual Studio)

Machine Learning

Natural Language Processing

Transfer Learning

Data Analytics & Visualization

ACTIVITIES

IEEE Young Professionals

IEEE Consumer Technology Society Membership

Reviewer for SN Computer Science Journal, Springer Nature (New York, US)

Reviewer for Computers in Biology and Medicine, Elsevier

Reviewer for Artificial Intelligence, Elsevier

LANGUAGES

English

Hindi

Punjabi

PROFILE

Passionate and skilled Assistant Professor with experience in academia and research. Adept at leveraging advanced data science techniques to supervise and mentor students, develop AI and NLP solutions, and lead impactful research projects. Excels in problem-solving, adapting to unique project needs, and optimizing time and resources to drive impactful results.

EMPLOYMENT HISTORY

Assistant Professor at Central University of Jammu, India
July 2023 — Present

Research Associate (DRDO project) at Kalam Centre of Science and Technology, Central University of Jammu, India
October 2022 — July 2023

- Developed text and speech corpora and used AI and NLP for classification.
- Supervised field investigators, JRFs, and linguistics team.

Doctoral Researcher at Shri Mata Vaishno Devi University, India
August 2018 — December 2023

Assistant Professor at Model Institute of Science and Technology, India
August 2017 — August 2018

EDUCATION

PhD (Computer Science & Engineering), Shri Mata Vaishno Devi University, India
August 2018 — September 2023

Master of Technology (Computer Science & Engineering), Chandigarh group of Colleges, India
August 2015 — July 2017
CGPA: 8 / 10

Bachelor of Technology (Computer Science & Engineering), Akal College of Engineering and Technology, Baru Sahib, H.P., India
August 2010 — June 2014
CGPA: 8.2 / 10

PROJECTS (JANUARY 2014 - AUGUST 2014)

Chat Application using Core JAVA (JavaSE6, Multithreading, Swings, Networking) Designed ERP for university using Microsoft SQL Server Management Studio

Crime Operations and Management System using Advance JAVA [J2EE] (using Eclipse).

Zone Based routing protocol with Mobility using Java Net Beans (Using WSNs)

PHD RESEARCH WORK

August 2018 — September 2023

Thesis Title: Deep and Transfer Learning based techniques for sentiment analysis using social media data.
Technologies: Python, Machine Learning, Deep Learning, Transfer Learning, Feature Extraction, and Optimization of Parameters

CERTIFICATIONS

- Full Stack Data Science | Ineuron |2022.
- NLP with Classification and Vector Spaces | Deeplearning.ai |Aug 2020
- Workshop on Mathematical and Statistical methods for Machine Learning | NIT Hamirpur | Nov 2020
- Fundamentals of Deep Learning for computer vision | NVIDIA | Oct 2019
- Foundation of Fuzzy Set and Fuzzy Logic Applications | TEQIP-III at SMVDU, Jammu| 2019
- Python for Data Science: Intermediate |Dataquest.io | July 2019
- Exploratory Data Visualization| Dataquest.io | Sept 2019
- Data Analysis Techniques with Python | IIT Roorkee | Sept 2018
- Introduction to Game Development | Michigan State University - Coursera Mar 2018
- Workshop on "Introduction to Embedded Systems and Robotics" | IIT Bombay | 14th & 15th Sept 2023
- Workshop on "Self Balancing Robots" | IIT Bombay | 15th - 17th Feb 2024
- Session chair at International Conference on Recent Innovations in Computing (ICRIC-2023) | Central University of Jammu | 26th -27th Oct, 2023

RESEARCH PUBLICATIONS

- Kour, H., & Gupta, M. K. (2022). An hybrid deep learning approach for depression prediction from user tweets using feature-rich CNN and bi-directional LSTM. Multimedia Tools and Applications, 1-37.
- Kour H, Gupta MK. (2022) Predicting the language of depression from multivariate twitter data using a feature-rich hybrid deep learning model. Concurrency Computat Pract Exper. 2022;e7224.
- Kour, H., & Gupta, M. K. (2022) AI Assisted Attention Mechanism for Hybrid Neural Model to Assess Online Attitudes About COVID-19. Neural processing letters, 1-40.
- Kour, H., & Gupta, M. K. (2024). Hybrid evolutionary intelligent network for sentiment analysis using Twitter data during COVID□19 pandemic. Expert Systems, 41(3), e13489.
- Kaur, I., Kour, H., & Verma, A. (2017). Ticket based Secure Authentication Scheme using NTRU Cryptosystem in Wireless Sensor Network. International Journal of Computer Science and Information Security, 15(2), 55.
- Kaur, I., Kour, H., & Verma, A. (2016) Analysis of Security, Privacy and Efficiency Aspects of Handover Authentication Protocol for Wireless Sensor Networks. International Journal of Research in Electronics and Computer Engineering, 4(4), 30-35.
- Kour, H., & Gupta, M. K. (2022). Recent Techniques for Sentiment Analysis on Medical Data to Predict Depression: A Review. Recent Innovations in Computing, 379-389, Springer, Singapore.
- Kour, H., & Gupta, M. K. (2021). Depression and Suicide Prediction using Natural Language Processing and Machine Learning. International Conference on Cyber Security, Privacy and Networking (ICSPN), Springer Verlag, Singapore.
- Kour, H., & Gupta, M. K. (2022, December). Hybrid LSTM-TCN Model for Predicting Depression using Twitter Data. In 2022 17th International Conference on Control, Automation, Robotics and Vision (ICARCV) (pp. 167-172). IEEE.
- Bhardwaj, R., Kumar, N., Kour, H., Verma, N., & Ashish, A. (2023, October). Analysis of advanced persistent threat attacks, lifecycle, and counter measures: A comprehensive review. In The International Conference on Recent Innovations in Computing (pp. 143-153). Singapore: Springer Nature Singapore
- Fayaz, M., Mahajan, P., Kour, H., & Abrol, P. (2025, July). H-ADNET: Aerial Image Based Scene Identification with Hyper Parameter Optimization in Deep Convolutional Networks. In International Conference on Data Science and Applications(pp. 169-182). Cham: Springer Nature Switzerland.