Kishan K C

585 430 0261   kishan.kc@mail.rit.edu   https://kishankc.com.np

SUMMARY

- I develop machine-learning algorithms to model, predict and explain biological data.
- I design, implement, and train machine-learning models, usually in scikit-learn (python) and PyTorch.
- I have a strong background in probabilistic machine learning, deep learning, graph neural networks, network biology, and interpretability.

EDUCATION

Rochester Institute of Technology, Rochester, New York   August 2016 - Present
PhD in Computing and Information Sciences. GPA 4/4
Relevant coursework: Statistical Machine Learning; Deep Learning;
Big data; Statistical Analysis

Institute of Engineering, Tribhuvan University, Kathmandu, Nepal   January 2010 – October 2014
B.E. in Computer Engineering. Passed with Distinction
Relevant Courses: Artificial Intelligence; Data Mining; Big Data
Technologies; Computer Programming; Data Structures and Algorithms;
Probability and Statistics

RESEARCH EXPERIENCE

Graduate Research Assistant, Lab of Use-Inspired Computational Intelligence
Rochester Institute of Technology, Rochester, NY   August 2016 – Present

- Developed higher-order graph convolutional networks (github.com/kckishan/HOGCN-LP) on PyTorch to aggregate information from multi-hop neighborhood for link prediction
- Developed interpretable and sparse gated sequence encoder (github.com/kckishan/InterpretablePIP) on PyTorch tailored to biological sequences
- Designed representation learning framework (github.com/kckishan/GNE) on TensorFlow to integrate biological networks with additional node information for link prediction

INDUSTRY EXPERIENCE

Data Engineer, Research & Development, Project: Medical Intelligence
Verisk Information Technologies, Kathmandu, Nepal   May 2015 – June 2016

- Developed machine learning model on scikit-learn to predict the execution time of SQL queries for optimization
- Collaborated with a team of 10 to develop a framework for norm processing and received the team of the quarter award
- Awarded two individual awards for outstanding contributions to the projects and workplace

SKILLS

Data Science tools	NumPy, Pandas, SciPy, Matplotlib, NetworkX, Jupyter
Deep Learning Frameworks	PyTorch, TensorFlow
Programming Languages	Python, R
Machine Learning libraries	Scikit-learn (python), Caret (R)
Databases	SQL

SELECTED PUBLICATIONS

3. **K C K.**, Li R., Cui F., Haake A. "Predicting biomedical interactions with higher-order graph convolutional networks." *IEEE/ACM Transactions on Computational Biology and Bioinformatics*. Feb 2021.

2. **K C K.**, Cui F., Haake A., Li R. "Interpretable Structured Learning with Sparse Gated Sequence Encoder for Protein-Protein Interaction Prediction, *25th International Conference on Pattern Recognition*, Jan 2021.

1. **K C K.**, Li R., Cui F., Yu Q., Haake A. "GNE: A deep learning framework for gene network inference by aggregating biological information" *The Asia Pacific Bioinformatics Conference*. Jan 2019.

HONORS, AND AWARDS

RIT PhD Merit Scholarship	2016-Present
RIT Graduate Showcase Oral Presentation Award	2019
Team of the Quarter	2017
Data Science Certification Grant	2016
The employee of the Year	2016
Rookie of the Year	2015