

# Kishan K C

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<https://kishankc.com.np>

## SUMMARY

- Extensive theoretical and practical background in machine learning and deep Learning.
- Experienced with designing, implementing, and training deep learning models, usually in PyTorch.
- Excellent teamwork, communication, and writing skills developed through previous industry experience, research publications, presentations, and talks.

## EDUCATION

**Rochester Institute of Technology**, Rochester, New York

Aug 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

Jan 2010 – Oct 2014

*B.E. in Computer Engineering. Passed with Distinction*

Relevant Courses: Artificial Intelligence; Data Mining; Big Data

Technologies; Data Structures and Algorithms; Probability and Statistics

## RESEARCH EXPERIENCE

**Graduate Research Assistant**, Lab of Use-Inspired Computational Intelligence

*Rochester Institute of Technology, Rochester, NY*

Aug 2016 – Present

- Developed probabilistic model selection to infer most plausible neural network depth warranted by data
- Developed higher-order graph convolutional networks ([github.com/kckishan/HOGCN-LP](https://github.com/kckishan/HOGCN-LP)) on PyTorch to aggregate information from multi-hop neighborhood to recommend novel/missing links
- Developed interpretable and sparse gated sequence encoder ([github.com/kckishan/InterpretablePIP](https://github.com/kckishan/InterpretablePIP)) on PyTorch to embed protein sequences for scalable link prediction
- Designed representation learning framework ([github.com/kckishan/GNE](https://github.com/kckishan/GNE)) on TensorFlow to integrate biological networks with additional node information for link prediction

**Applied Scientist Intern, Alexa AI**

*Amazon, Sunnyvale, CA*

Jun 2021 – Sep 2021

- Designed and implemented embedding adaptation via transformer-based architecture in open-set few-shot learning

## SELECTED PUBLICATIONS

- **K C, K**, Gilany M., Li R. Joint Inference for Neural Network Depth and Dropout Regularization. *Proceedings of Neural Information Processing Systems (NeurIPS)*. 2021 (*To appear*).
- **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*. 2021.
- **K C K.**, Cui F., Haake A., Li R. Interpretable Structured Learning with Sparse Gated Sequence Encoder for Protein-Protein Interaction Prediction, *25<sup>th</sup> International Conference on Pattern Recognition*. 2021.
- **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*. 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

## **SKILLS**

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