Kishan K C

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SUMMARY

- Aspirant Machine Learning Scientist with more than six years combined experience in academic and industry settings
- Experience in applying machine learning techniques to genomic data
- Experienced with graph representation learning models for link prediction in biological networks
- Excellent teamwork, and communication skills developed through previous industry experience, research presentations, and talks

EDUCATION

- **Ph.D. in Computing and Information Sciences,** GPA: 4/4 — Aug 2016 – Present
  Rochester Institute of Technology
- **B.E. in Computer Engineering,** with distinction — Jan 2010 – Oct 2014
  Institute of Engineering, Tribhuvan University

RESEARCH EXPERIENCE

- **Rochester Institute of Technology,** Rochester, NY — Aug 2016 – Present
  Research Assistant, Lab of Use-Inspired Intelligence
  Project: Link Prediction in Biological Network using Network Representation Learning and Neural Architecture Inference
  - Developed various deep learning models to predict novel biological interactions by integrating biological networks with other genomic data
  - Collaborated with domain experts to understand and investigate the model's predictions
  - Published and presented 3 research papers with the state-of-the-art performances on biological link prediction.

INDUSTRY EXPERIENCE

- **Verisk Information Technologies, Kathmandu, Nepal** — May 2015 - Jun 2016
  Data Engineer, R&D, Project: Medical Intelligence
  - Communicated and documented project updates with various stakeholders
  - Collaborated in a team of 10 to develop a framework for norm processing to compute benchmark measures and awarded team of the quarter award
  - Initiated the development of a machine learning model to predict the execution time of SQL queries to improve optimization
  - Awarded two individual awards for outstanding contribution to the projects

SKILLS

- Data Science tools — IPython, NumPy, Pandas, SciPy, Matplotlib, Seaborn, NetworkX
- Deep Learning — PyTorch
- Machine Learning — Scikit-learn (Python)
- Programming — Python, R
- Databases — SQL, PL/SQL

HONORS AND AWARDS

- RIT Graduate Showcase Oral Presentation Award (2019).
- RIT Ph.D. Merit Scholarship (2016 – Present).
- Data Science Grant (2016). Awarded $2000 by Verisk Information Technologies for completing Data Science Certification on Coursera.
- Team of the Quarter (2017). Awarded by Verisk Information Technologies in recognition of exceptional performance for developing norm framework – processing and integration.
- The Verisk Way to Go Award (2016). Awarded by Verisk Information Technologies for outstanding contributions to the workplace.
- Rookie of the Year (2016). Awarded by Verisk Information Technologies in recognition of exceptional performance among 70 new employees.

SELECTED PUBLICATIONS

- **K C K.,** Li R, Cui F., Haake A., *Predicting Biomedical Interactions with Higher-order Graph Convolutional Networks*. Accessible from arXiv. (In review).
- **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, (ICPR 2020).
- **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 (APBC 2019).

SELECTED TALKS AND POSTERS

- Interpretable sparse encoding of sequences for protein-protein interaction prediction European Student Council Symposium (ESCS), 2020. *(Flash Talk, Poster)*
- Learning Sparse and Structure Gaussian Embedding of Protein sequences using pairwise constraints. RIT Graduate Showcase, RIT, 2019. (🎖 **Best Oral Presentation Award**)
- PyTorch Tutorials. CISC 865.01 Deep Learning, RIT, 2019. *(Guest talk)*
- Deep Learning on Graphs. CISC 865.01 Deep Learning, RIT, 2018. *(Guest talk)*
- Introduction to Neural Networks. CISC 863.01 Statistical Machine Learning, RIT, 2018. *(Guest talk)*
- Gene Network Embedding. New Deep Learning Techniques, IPAM, UCLA, 2018. *(Poster)*