

Kishan KC

kishankc.com.np | kk3671@rit.edu

Research Interests

Heterogeneous Data Integration; Representation Learning; Deep Learning; Computational Biology

Education

- 2016 – **Doctor of Philosophy, Computing and Information Sciences**
Golisano College of Computing and Information Sciences
Rochester Institute of Technology, Rochester, NY
Advisor: Professor Anne Haake, Professor Rui Li
- 2011 - 2014 **Bachelor of Engineering, Computer Engineering**
GPA 4.0
Institute of Engineering, Pulchowk Campus
Tribhuvan University, Lalitpur, Nepal
Thesis: Agricultural Data Integration and Analysis – Integration and analysis of heterogeneous data about various factors affecting agricultural production to recommend appropriate crops for a location.

Experience

- Aug 2016 – **Research Assistant**
Human-Centric Multi-Modal Modelling Lab
Project: ABI Innovation - Novel Methodology for Leveraging Metabolic Simulation to Improve Regulatory Reconstruction
Advisor: Professor Anne Haake, Professor Rui Li
- May 2015 – **Data Engineer**
Jun 2016 Research and Development (R&D) team, Verisk Information Technologies
Project: Medical Intelligence
Analyzed US healthcare data (medical and pharmacy claims) to assign a risk score to each individual. Also, created a machine learning model to predict the execution time of scripts with increase in size of input data and provide suggestions regarding the optimization of that script.
- Oct 2014 – **Software Trainee**
Apr 2015 Data Warehousing ETL Team, Yomari Inc. Pvt. Ltd.
Project: Express EDW
Developed ETL scripts to load data from retail stores to data warehouse and ETL process validation framework to ensure successful transfer of data from source to destination. Also, designed a wrapper function to execute test scripts and log output to database tables.
- May 2013 – **Research Intern**
Dec 2013 E & T Nepal Pvt. Ltd.
Project: 3D CAD Viewer on HTML5 over SSL
Developed web-based GUI that provides user friendly interface for realistic rendering of Computational Fluid Dynamics (CFD) results in three dimensional (3D) models. Also, implemented sharing functionality to help share the rendered models with other users.

Honors and Certifications

2016 –	RIT PhD Merit Scholarship, Rochester Institute of Technology
2016	Data Science Certification, Coursera.com
2016	The Verisk Way to Go Award, Verisk Information Technologies
2016	Team of the Quarter, Verisk Information Technologies
2015	Rookie of the Year, Verisk Information Technologies
2015	The College Fellowship Scholarship, Institute of Engineering
2015	Full Fee Programme Wise Semester Topper Scholarship, Institute of Engineering
2015	Full Fee Programme Wise Batch Topper Scholarship, Institute of Engineering

Recent Projects

2018	Gene Network Embedding Developed a deep learning framework to integrate gene expression data with topological properties of gene interaction networks that models their relative importance in gene interaction prediction. Modeled the problem as network embedding problem to learn a lower-dimensional representation for a gene, which is used to predict its interactions with other genes.
2017	Reconstruction of Gene Regulatory Networks with Ensemble SVM Developed an ensemble of Support Vector machine with recursive feature elimination that identifies the regulatory relationships between transcription factors and target genes. Framing the reconstruction as feature selection problem, we followed recursive feature elimination approach to identify the candidate transcription factors that are significant in expression of a target gene.
2016	PredSoccer: Predicting outcome of a soccer match Investigated various features such as teams' previous matches results, weather condition, and players statistics to evaluate their informativeness about the upcoming soccer game. Developed a machine learning model to predict the outcome of the soccer match.

Technical Skills

Deep Learning Libraries	TensorFlow, PyTorch
Programming Languages	R, Python, Java, C/C++, MATLAB
Databases & Query Languages	Oracle, MySQL, SQL, PL/SQL
Web development	HTML/5, CSS, JavaScript, PHP, Django, Shiny
Other	Amazon AWS EC2, GitHub, SVN