

# KISHAN K C

kk3671@rit.edu • kishankc.com.np

2299 Brighton Henrietta Tl Rd, Rochester, NY 14623

## RESEARCH INTERESTS

---

Probabilistic Graphical Models, Machine Learning, Deep Learning

## EDUCATION

---

**Doctor of Philosophy, Computing and Information Sciences** *2016 - Present*

Rochester Institute of Technology, Rochester, NY

Advisor : Professor Anne Haake

**Bachelor of Engineering, Computer Engineering** *2011 - 2014*

GPA : 4.0/4.0, Rank: 2<sup>nd</sup> of 48

Institute of Engineering, Tribhuvan University, Lalitpur, Nepal

**Thesis:** Agricultural Data Integration and Analysis - Analyzing influence of environmental factors in agricultural production to recommend appropriate crops for a place

## HONORS AND CERTIFICATIONS

---

**RIT PhD Merit Scholarship** 2016

**Data Science Certification, Coursera.com** 2016

**Verisk Way to Go Award** 2016

**Rookie of the Year** 2015

**Academic Excellency Award (8 awards)** 2014

**The College Fellowship Scholarship (6 awards)** 2014

## EXPERIENCE

---

**Rochester Institute of Technology**, Graduate Research Assistant *2016 - Present*

ABI Innovation - Novel Methodology for Leveraging Metabolic Simulation to Improve Regulatory Reconstruction

**Verisk Information Technologies**, Data Engineer *2015 - 2016*

- Worked with Research & Development team to analyze US health-care data (medical and pharmacy claims) to provide insight about health condition of people
- Created Machine Learning model to extrapolate execution time of scripts with increase in data and suggest optimization for that scripts
- Involved on automation of Medical Intelligence backend execution and validation for continuous integration of product from development to production

**Yomari Inc. Pvt. Ltd.**, Software Trainee *2014 - 2015*

- Involved in design of data flow, and ETL scripts development for Express EDW
- Developed source vs. destination validation framework to ensure ETL process
- Designed program to execute unit, system and integration test scripts and log output in database table

- Developed web application that provides user friendly interface for CFD engineers to assist them to simulate CFD results in 3D models.
- Provided sharing platform for simulated CFD results to be shared among CFD engineers in different location to assist development of 3D models collaboratively.

## PROJECTS EXPERIENCE

---

### **PredSoccer**

A shiny application that predicts outcome of soccer matches

- A classification framework that classify the possible outcome of a soccer match as home team wins, draw or home team loses.
- Applied and compared different classification algorithm: Naive Bayes Classifier, Logistic Regression, Random Forest, SVM, Neural Network

### **Next Word Predictor**

A shiny application that predicts probable next word in a sentence

- A predictive text model to predict the likelihood of next word to appear in a sentence based on n-gram model
- Applied maximum likelihood estimation of unigrams, bigrams and trigrams, combined probabilities of unigram, bigram and trigram probabilities and also implemented Jelinek-Mercer Smoothing to improve accuracy
- Employed part-of-speech tagging (POST) to provide default predictions by part of speech.

### **Agricultural Data Integration and Analysis System**

An application to analyze influence of environmental factors in agricultural production to recommend appropriate crops for a place

- Designed ETL framework to collect and integrate agricultural data from different sources
- Created crop yield prediction model using feed forward back propagation artificial neural network to predict crop yield in different districts of Nepal based on different variables like temperature, rainfall, fertilizers and soil properties
- Developed recommender to suggest crops to cultivate based on past yield data and data from similar places to maximize crop yield

## TECHNICAL SKILLS

---

### **Programming Languages**

R, Python, Java, C/C++, MATLAB

### **Databases & Query Languages**

Oracle, MySQL, SQL, PL/SQL

### **Web development**

HTML/5, CSS, JavaScript, PHP, Django

### **Other**

Github, SVN, Agile Software Development, Shiny