

# Deepak Rishi

deerishi.github.io

drishi@uwaterloo.ca | 226 988 5634

LinkedIn : Deepak Rishi

## SUMMARY

I am a Computer Scientist and a full stack software developer experienced with advanced machine learning, algorithms and natural language processing. I love incorporating artificial intelligence algorithms into full stack software development.

## EDUCATION

### UNIVERSITY OF WATERLOO MASTER OF MATHEMATICS IN COMPUTER SCIENCE

Major : Machine Learning  
Expected December 2017  
Cum. GPA: 89

Awards : David R. Cheriton Graduate  
Scholarship • Mathematics Graduate  
Experience Award • Mitacs Globalink  
Fellowship

### BITS PILANI

#### B.S. IN ELECTRONICS AND INSTRUMENTATION

Graduated May 2014 | India  
Cum. GPA: 9.12

Major : Machine Learning  
Dean's Top 10 Students (3 years)

## COURSEWORK

### GRADUATE

Machine Learning  
Deep Learning  
Operating Systems  
Intro to Artificial Intelligence  
Time Series Analysis  
Concurrent and Parallel Programming  
Computer Networks  
Algorithms  
Memory Management and Garbage  
Collection

## SKILLS

### PROGRAMMING

C++ • C • Python • Javascript  
• C# • Ruby • Django • Java • R  
• Angular JS • Node.js • D3.js  
• MySQL • Android Development •  
Graphlab

## EXPERIENCE

### CAPCO | SOFTWARE ENGINEER INTERN

May 2017– Sep 2017 | Toronto, Canada

- Full stack software development for Capco Process automation framework.
- Developing a recommendation engine for recommending bank products to users using past transaction history.

### S&P GLOBAL MARKET INTELLIGENCE | DATA SCIENTIST II

April 2015– Sep 2015 | Gurgaon, India

- Developed document classification models for financial documents. Increased F1 score to 0.89 from 0.77. Filed a US patent for the same.
- Integrated the model to the company's website and mobile sites for real time classification.

### JAARVIS TECHNOLOGIES | SOFTWARE ENGINEERING MACHINE LEARNING

July 2014 – March 2015 | Gurgaon, India

- Used Support Vector Machine to incorporate hand gesture recognition models on the company's IoT product TAG using IMU (6 degrees of freedom) mounted on the device. Used Gradient Boosted Trees for selecting the best set of features to classify seven hand gestures.
- Programmed the server back end api's for the device and the mobile app in Python-Django. Incorporated messaging protocol MQTT for updating the gesture recognition models in the device.

### CENTRE FOR APPLIED RESEARCH IN ELECTRONICS | RESEARCH INTERN & BACHELOR THESIS

Jan 2014 – June 2014 | IIT Delhi, India

- Developed machine learning algorithms in C++ for classification of underwater objects using SONAR. Used DB\_Scan, PCA, Random Forests and Multinomial Logistic Regression to select the best features to classify underwater objects.
- Worked in collaboration with the Indian Navy to test the scalability of the model for classification of submarines and underwater mines.

### INDIAN SPACE RESEARCH ORGANIZATION | SOFTWARE ENGINEERING RESEARCH INTERN

May 2012 – July 2012 | IIRS, Dehradun

- Developed an Image Fusion algorithm in C++ for fusion of real time panchromatic and multispectral satellite images.

## PROJECTS

### GRAPH BASED SEMI SUPERVISED LEARNING FOR DOCUMENT CLASSIFICATION | Jan 2016 – May 2016

Explored different scalable techniques (both scalable and non scalable) for labelling text documents using minimum labelled training set.

### TUNING THE PARAMETERS OF CONVOLUTIONAL NEURAL NET USING GENETIC ALGORITHM FOR IMAGE CLASSIFICATION | Sept 2016 – May 2016