Deepak Rishi

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SUMMARY

I am a Computer Scientist experienced with advanced machine learning, algorithms and natural language processing.

EDUCATION

UNIVERSITY OF WATERLOO

Master of Mathematics in Computer Science
Major : Machine Learning
Expected August 2017
Cum. GPA: 88
Awards : •David R. Cheriton Graduate Scholarship •Mathematics Graduate Experience Award

BITS PILANI

B.S. in Electronics and Instrumentation
Graduated May 2014 | India
Cum. GPA: 91.2
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
Algorithms
Concurrent and Parallel Programming
Memory Management and Garbage Collection

SKILLS

PROGRAMMING

C++ • C • Python • Javascript • C# • Java • R • Angular JS • HTML • CSS • Matlab • MySQL • Graphlab

EXPERIENCE

S&P CAPITAL IQ | Data Scientist II (Full time)

April 2015– Sep 2015 | Gurgaon,India

- Used machine learning and natural language processing algorithms to develop document classification models for financial documents. Increased F1 score to 0.89 from 0.77. Filed a US patent for the same . Prior to my model the company was using a third party tool which cost 200k$ annually to the company.
- Analyzed various machine learning models in Python and Java.
- Ported the best development code in Java to C# for production deployment.

JAARVIS TECHNOLOGIES | Software Engineering Machine Learning (Full Time)

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 7 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

- Worked with Shefali Agarwal and 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 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

Other Projects : http://deerishi.github.io/projects/
Publications: http://deerishi.github.io/publications/