Dhruv Premi

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Major skills

Machine learning, probability

Data science experience: 3 years

1 year research experience at IIT Kharagpur during my masters 2010 – 2011

2 year research experience as a Data Scientist in Edge Networks Jun 2015 - present

Software development experience: 3 years

Member technical staff at Oracle India limited from June 2011 – Mar 2014

(I am only interested in Jobs, in which you have to build machine learning models and code them. Research should be there. )

**Highlights**

* Got a certified course in [“learning from data” from edX.](https://courses.edx.org/certificates/ef62b317581d452a8fa31ce6081dda63)
* Secured 99.58% and **172 Rank out of 45000** candidates in GATE 2009 Computer science (CS).
* Paper has been published at National Conference on Knowledge-Based Computing Systems and Frontier Technologies (NCKBFT 07), titled as “**Emotion as an information retrieval system**” held at Manipal Institute of Technology (MIT) during 19-20 February 2007

**Projects**

* Coded Sum-Product and Max Sum Algorithms for Linear Bayesian Probabilistic Models also known as Hidden Markov Models, used HMM to Solve Robot Localization Problem.
* Ran Linear Chain CRF by Inducing Feature Engineering into it thereby improving the sequence labeling accuracy. Input was unstructured text.
* My M tech Thesis is titled “**News Recommender system by building user profile based on his social network data**”.
  + It is recommendation system which profiles the user based on his Facebook interests and then provides him with news.

*July 2010 to July2011*

*Project areas ‘Personalization’ and ‘Social network analysis’*

* **Human Face recognition using Eigen faces**, in the project we decompose faces to lower dimension and then training a classifier on them. Dataset used was Yale Face Database.

Project areas ‘Computer Vision’ ‘Feature Selection’

* **Vehicle Control using Neural Networks**. Trained a Neural network by appropriate input/output pairs and thus making a vehicle drive by itself.

Project areas ‘Neural Networks’ ‘Machine Learning’

* Implemented an **inference engine** capable of executing MAP and MLE queries over Bayesian network and markov networks, used octave to implement this.

Project areas ‘Probabilistic graphical Models’

* Spam Classifier (Apache Spam Assassin Dataset), three classifier were used Bernoulli Naïve Bayes, Multinomial Event Naïve Bayes (both coded by hand) lastly I used Weka for the third logistic regression classifier.

Project areas ‘Generative Models’

* Made an Android app which finds all schools near your location or any area in the country. Provides information like
  + - * Every school Information
      * Run Analytics and provide important features about all the schools in the area selected.
      * Find critical problems affecting the schools in your area and provides mechanism for you to solve that problem.
  + Android Application
    - * <https://play.google.com/store/apps/details?id=neo.naruto.messi>
  + A video explaining the App
    - * <https://www.youtube.com/watch?v=qaj5gAXBgZA>
* **“Infra Red Gun Game”,** a hardware game made from components AT MEGA 32A, RF Modules, LCD and Infra red sensing. The language used is C, it is a Multi player game comprising of two teams. Teams are trying to hit each other by Infra red gun, hits are recorded on each player jacket and sent to main server for final results computation.
* Running a **Conditional random field to do OCR computation**. The model comprised of factors like probability of a image to the Alphabet trained by logistic regression and a co occurrence model which states how much likely are two alphabets occurring together.

Project areas ‘Conditional random field’ ‘Machine Learning’

* Hand Coded Lot of Machine Learning Algorithms to get feel of them
  + Perceptron Algorithm
  + Bernoulli Naive Bayes Classifier
  + Multinomial Bayes Classifier
  + Logistic Regression Algorithm
  + Linear regression
  + Support Vector Machines
  + K Means Algorithm

**Field Of Interest**

* Machine Learning, Information Retrieval, Image Processing, Robotics, **Probability**.

**Work Experience**

* Currently working in **AVR Edge Networks as a DATA SCIENTIST.** Working on automated resume parser. Have built Machine Learning Models which are able to extract information from unstructured text in a resume.

June 2015 – present

* Took a work break for One year. Sat at Home and did a lot of online courses.

Mar 2014 – June 2015

* Worked in **Oracle India Pvt. Limited as a Software developer in Bangalore**. Worked for a Product Web Center Content Management System. My role in the product was writing Automation test cases for the product integration with EM.

*July 2011 to Mar 2014*

* **Founded a NGO Engineers Educate** which focused on School Children Education.

*Aug 2007 to Jul 2008*

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| S.No. | **Qualification** | **Board** | **Year** | **Percentage** |
| **1.** | Mtech 4 Semester | IIT Kharagpur | 2011 | 9 |
| **2.** | Mtech 3 Semester | IIT Kharagpur | 2010 | 8.75 |
| **3.** | Mtech 2 Semester | IIT Kharagpur | 2010 | 6.5 |
| **4.** | Mtech 1 Semester | IIT Kharagpur | 2009 | 8.04 |
| **5.** | B.E Info. Technology | University of Rajasthan | 2007 | 66.0 |
| **6.** | A.I.S.S.C.E | C.B.S.E | 2002 | 64.7 |
| **7.** | A.I.S.S.C.E | C.B.S.E | 2000 | 78.8 |

* **My CGPA in M Tech is 8.05.**