

# Himanshu Verma

A-210, LBS HALL OF RESIDENCE, IIT KHARAGPUR WEST BENGAL, INDIA - 721302



#### **EDUCATION**

2013-2018 (EXPECTED) B.Tech and M.Tech (Dual Degree) in Computer Science and Engineering

Indian Institute of Technology, Kharagpur

**Relevant Courses:** Deep Learning, Machine Learning, Artificial Intelligence, Operating Systems, Database Management Systems, Computer Networks, Information Retrieval, Speech & Natural Language Processing, Compilers, Software Engineering, Algorithms-I & II, Discrete Structures

# INTERNSHIP/FULL TIME OFFERS

AUG 2017

Pre-Placement Offer from Adobe Systems, Bangalore (Member of Technical Staff)

JULY 2017

Bidding on Low Impression Keywords in Paid Search Advertising

MAY 2017

Product Intern at Adobe Systems, Bangalore

- Adobe has an algorithmic bidding system which helps clients to find the right bid, predict the cost incurred and returns fetched.
- All keywords do not have enough historical data to come up with predictions which limits the bidding system's coverage and poses a risk of not getting clicks when placing bids on these keywords.
- Minimised this risk and increased the coverage by building a model which finds the probability of getting clicks on sparse keywords.

JUN 2016 MAY 2016

# **Building Knowledge Base using Unstructured Data**

Software Development Intern at FLIPKART, Bangalore

- Proposed a domain specific chunking grammar, which was used along with various open information extractor tools like ReVerb, Ollie, Stanford CoreNLP to extract the phrases from each sentence.
- Used word2Vec model to produce word embedding and then used Hierarchical Agglomerative Clustering (HAC) method to cluster them.

# **ACADEMIC PROJECTS**

MAR 2017

## **Detection of Diabetic Retinopathy in Eye Images**

SEP 2016

- Pre-processed the data-set which includes fundus and OCT images by removing redundant information and created a Convolutional Neural Network (CNN) that learns and classifies images in different category based on severity of disease.

Nov 2016

### Song Lyrics Generation using Neural Networks

AUG 2016

- Built a database of song lyrics and used tensorflow to create a Long Short Term Memory (LSTM) neural network that works on a word-level language model which learns the artists' styles of writing, including words, rhymes, chorus, etc.

Apr 2016

## Link Prediction using Apache Spark

MAR 2016

- Given a social graph, predict which links are expected to appear in the future. Used Logistic Regression (mllib library - Apache Spark) and Jaccard's similarity to calculate the probability of two unconnected nodes getting connected in the future.

MAR 2016

## Academia - Course Management System

FEB 2016

- Built a complete course management system that supported authentication & authorization, User Access Control for 4 different types of users, calendar support and all major features one can expect from a CMS.

Nov 2015

# Compiler for Tiny C (A Subset of C Language)

Aug 2015

- Developed a TINY C compiler using compilers principles, techniques and tools. The tools used for development were Flex and Bison. The compiler was written entirely in C++ language.

APR 2015

### **Restaurant Automation System**

MAR 2015

- Developed a software built using JAVA Swing for a Restaurant Automation System which handles and automates the requests of the management and customers. Documented the software (SRS,SA/SD,UML,Test-Suite),which involved using UML case tools.

# TECHNICAL SKILLS

PROGRAMMING Proficient in C, C++, competent in Python, Java and Familiar with Scala, Javascript
LIBRARIES/FRAMEWORKS
DATABASES
MARKUP/TEMPLATING
SOFTWARE & TOOLS
SYSTEMS/PLATFORMS
Proficient in C, C++, competent in Python, Java and Familiar with Scala, Javascript
TensorFlow, scikit-learn, pandas, Node.js, AngularJS, Express
MySQL, MongoDB
HTML, CSS, ETEX
StarUML, Netbeans ID, Eclipse
Systems/Platforms
Git, Microsoft Windows, Linux(Ubuntu)

## SCHOLASTIC ACHIEVEMENTS

- Stood amongst top 2.6% participants (rank 150) in the Google APAC 2017 University Test Round B. Handle lannister.
- Team Curious\_moles qualified for the onsite round and stood amongst top 20% participants in the ACM-ICPC'16 held at Coimbatore.