Vishwash Batra

Phone: +91-75893-25457
College Email ID: vishwashbtr@iitrpr.ac.in
Email ID: vishwash.iitrpr@gmail.com

Address: H. No. 739/9-A, Street Number 7, Guru Nanak Nagar Distt.: Patiala, Punjab 147003

EDUCATION

B.Tech in Computer Science and Engineering   2011 - *Present*

Indian Institute of Technology Ropar
CGPA = 7.49/10 (after 6 semesters)

XII CBSE   2011

D.A.V. Public School, Patiala
Percentage = 87%

X CBSE   2009

Sri Aurobindo International School, Patiala
Percentage = 91%

RESEARCH INTERNSHIPS

Topic-Sentiment Visualisation and Emotion detection from live Twitter stream
Summer 2014

Dr. Yulan He , Aston University, Birmingham, UK
Developed a Django-based web application-sentimentvis which extracts topics and emotions from live twitter stream. It involved designing its user interface, which has a utility, with which a filter based on a keyword can be kept, and catches all the recent Tweets using Twitter's REST API. Major components of the application include Tweet Fetcher, Tweet-Pre Processor, Lexicon Matcher and Emotion Detector. Simple Lexicon Matching Techniques are used for Labeling which use a Hashmap. NRC Lexicon was used.

Social Network Analysis Approach to Generalized Selection Problem of Suppliers in a Supply Chain
Winter 2013

N. Viswanadham ,INAE Distinguished Professor, Indian Institute of Science, Bangalore
The main aim of the project was to come up with a method for ranking of suppliers based on various attributes using the Social Network Analysis (SNA) metrics, A network science concept. It involved simulating a sample supply chain in python (using networkx), later worked on real data from Honda Accord for results, for ranking Hubs and Authorities approach (similar to Google's Page ranking algorithm) was used.

PROJECTS

Training And Placement Cell- Web Portal   September-November 2013

Dr. Balwinder Sodhi ,IIT Ropar

Designed and developed a Web Application for Training and Placement Cell of my college (IIT Ropar). It has the functionality of student profiles, company profiles, online test facility, open-question portal, notifications to students. Most of the open-source technologies like Apache-PHP-Mysql were used. For the front-end BootStrap (made public by Twitter Inc.) library was used.

Mammographic Image Analysis Aug2014-present

Dr. Deepti Bathula, IIT Ropar

Developing a CAD system for early detection of Breast Cancer from a Mammogram using Image Processing, Machine Learning and Pattern Recognition Techniques. It involves extracting texture-based and shape-based features, followed by reduction of feature space to optimal Subspace using Principal Component Analysis from a standard Data set of Mammograms (currently mini-MIAS). Building a Support Vector Machines Classifier with a linear kernel to detect the severity of masses and calcifications present in the tissue (benign or malignant)

Architecture Simulator Nov-Dec 2012

Dr. Smruti Ranjan Sarangi, IIT Delhi

Simulated a branch predictor, cache and instruction pipeline and calculated the efficiency of the predictor. Branch predictor was implemented as Tournament predictor (which contained Gshare and bimodal predictor) and cache was two-level (FIFO replacement policy used in one and LRU in another).

Chess with 3D View (Two Player) November 2013

Dr. Deepti Bathula, IIT Ropar

First developed a 2D Chess using OpenGL and Python Imaging Library (PIL), then extended it to a Chess with 3D view in OpenGL. It had functionality of valid move checking, user dragging and dropping chess pieces. The chessboard could be rotated and translated in space, giving it a 3D View.

LISP based Language Interpreter August-Sept 2012

Dr. Apurva Mudgal, IIT Ropar

Developed an interpreter for a LISP-based language, which had the functionality of conditional statements, loops, recursive function definition, environment variables. Data Strucure Generalised list was used to parse the input command. The interpreter evaluated the expression using EvalList and EvalNode procedures.

RELEVANT COURSES

Computer Science Data Structures, Computer Architecture, Operating Systems, Advanced Software Architecture, Computer Graphics, Analysis and Design of Algorithms, Computer Networks, Cryptography, Digital Image Processing, Cryptography, Artificial Intelligence, Logic and Computability, Machine Learning, Computer Vision

Mathematics Discrete Mathematics, Real Analysis, Probability Theory and Stochastic processes, Modern Algebra, Linear Algebra

COMPUTER SKILLS

Programming Languages: C/C++, Python, Java, Matlab, ARM7(Assembly Language)

Web Technologies:	Django, PHP, HTML/CSS, MySQL, Javascript
Software Packages:	Django, Play, iPython, NetBeans

ACADEMIC ACHIEVEMENTS

- Secured an All India Rank of 3872 out of 4,56,000 students, in IITJEE- 2011 (Joint Entrance Exam).

- Secured an All India Rank of 3511 out of 11,20,000 students, in AIEEE-2011 (All India Engineering Entrance Exam).

- Secured an All India Rank of 252 in NSTSE-2011