Dibyendu Mondal

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EDUCATION Georgia Institute of Technology, Atlanta, GA

Master of Science, Computer Science

Expected May 2019

Indian Institute of Technology Bombay, Mumbai, India

Bachelor of Technology(Honors), Computer Science and Engineering

August 2017

PUBLICATIONS

Raksha Sharma, **Dibyendu Mondal**, Pushpak Bhattacharyya

A Comparison among Significance Tests and Other Feature Selection Methods for Sentiment

Analysis: A First Study, CICLING, Budapest, Hungary, 2017 Raksha Sharma, **Dibyendu Mondal**, Pushpak Bhattacharyya

Statistical Significance Tests and Its Impacts in Sentiment Analysis, Accepted Tutorial in 13th

International Conference on Natural Language Processing, India, 2016

RESEARCH

Undergraduate Thesis: Reconstruction from multiple Depth Sensors

Siddhartha Chaudhuri, IIT Bombay

Autumn'17

Designed a system that scans a human body using low-cost commodity Depth Sensors. Robustly reconstructed a synthetic mesh of a person using these partial, noisy scans.

Study of Significance Tests as Feature Selection Method for SA

Pushpak Bhattacharyya, IIT Bombay

2016

Studied and Compared various feature selection methods like TFIDF, Delta-TFIDF, Relief, χ^2 test and t-test. Analyzed the impact of significance tests in In-domain, Cross-domain and Cross-lingual SA in various dataset. Concluded that t-test is more promising than any other significance test or feature selection method.

EXPERIENCE

Optimal NW Scheduling Strategies for Dense DSDS Deployment Scenarios

Pradeep Dwarakanath, Samsung Bangalore

Summer 2016

Studied the behavior of secondary SIM in case of switching from one SIM to another in Dual SIM phones. Used various probabilistic models to learn and predict the behavior of the secondary SIM. Employed smart scheduling strategies at network to minimize the loss of "On Air" resources. Tested the code with multiple configurations and showed improvement in resource utilization at NW.

Undergraduate Teaching Assistant

IIT Bombay

Sharat Chandran & Sunita Sarawagi

Summer 2016

Been a teaching assistant for Software Systems Lab and Computer Programming and Utilization Lab. Designed and evaluated labs and projects for a batch of over 120 students. Conducted tutorial sessions for helping students in various topics.

PROJECTS

Procedural Modeling of Cities: Created a parser for a grammar of a city and parsed it to create a syntax tree. Iterated over the faces of a manually generated road network and called a render function at each leaf node. Probabilistically generated different types of buildings like schools, offices, residential homes etc. Coded it in C++ using graphics libraries like OpenGL and GLUT.

Object Tracking using Mean-Shift: Designed a system for real-time tracking of non-rigid objects from a moving camera using Mean Shift. Used Bhattacharyya Coefficient based metric for better target localization.

Droids in RenderMan: Designed a humanoid and a non-humanoid (BB-8) bot, inspired from the Star Wars movies. Used multiple point lights which acted as an area light and generated soft shadows. Used indirect illumination for Color Bleeding and Photon Mapping for Caustics. Coded it in RSL and rendered in RenderMan.

Music Classification based on Genre: Developed a Music Genre Classifier using Feedforward Neural Network. Tested the classifier on various kinds of inputs for classifying them into pop, classical, metal, rock etc. Studied different parameters like total error, sensitivity and specificity and achieved > 80% accuracy. Coded it in Python using libraries like Pybrain and Neurolab.

TECHNICAL SKILLS

Languages: C/C++, Python, Bash, Processing, Java, SWI-Prolog

Web Development: HTML5, SQL, Django, Bootstrap, CSS, JS, jQuery, Flask

Data Analysis: PyBrain, NumPy, MATLAB, Torch

Others: OpenGL, Unity3D, Qt, PRMan, LATEX, Git, Gnuplot, Eclipse

INTERESTS

Computer Graphics, Computer Vision, Video Game Design

AWARDS

Undergraduate Research Award from IIT Bombay (2016)

TA of the month Award from IIT Bombay (2016)

LEADERSHIP

Represented CSE class of 2017 in **Department UG Council** and other Intra Dept. Events Co-organized various Hackathons by **Microsoft**, **Facebook** and **Web and Coding Club**