# Nibir Bora

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### EDUCATION • University of Southern California, Los Angeles, CA

MS in Computer Science, expected graduation: May 2014

Courses: Analysis of Algorithms, Natural Language Processing, Web Technologies, Database Systems, Artificial Intelligence, Human Communication & Machine Learning

♦ KIIT University, Bhubaneswar, India

B.Tech. in Computer Science and Engineering, May 2012 Bachelor thesis: Etola: Heuristic Clustering of Short Text

## WORK/ INTERNSHIP

Research Assistant, USC Information Sciences Institute (Aug 2012 - Present)

Group: Computational Behavior Group

Description: Involved in building an application for Twitter scrapping using Python and maintaining large geo-spatial databases in PostgreSQL. Design and development of various visualization and analysis tools to study mobility patterns, each consisting of REST APIs in Python/Django and web interface in JavaScript/jQuery with Google Maps API.

♦ Summer Research Intern, IIT Guwahati, India (May 2011 - Jul 2011)

Area of research: Sentiment Analysis, Machine Learning

Project: Feature Based Sentiment Analysis on Twitter (Novel research work on sentiment analysis. Involved building an application for Twitter scraping, machine learning algorithms and evaluation scripts using PHP.)

#### **PROJECTS**

⋄ Geospatial Analysis of Motion-Based Intelligence & Tracking (GAMBIT) (2012 - Present) brain.isi.edu/~gambit

A study in spatio-temporal data analytics to understand human mobility patterns, crowd mobility and behavior patterns, and reveal interesting correlations over space and time.

♦ Heuristic Clustering of News Headline (2011-12)

Developed a novel heuristic method to cluster news headlines, tested on five short-text corpora, and compared results with traditional clustering algorithms and results of other short-text clustering.

♦ Sentiment Classification of Tweets (2011-12)

Devised an automatic labeling technique for tweets and carried out a comparative study with other noisy label methods. Studied different methods of feature reduction and automatic test set generation. Built a web based application for opinion mining on tweets.

- **⋄** Academic projects:
  - · Socio-cultural Elements in Multimodal Human Communication (2012): An user agreement experiment on multicultural dyadic interview videos.
  - · Sentiment Analysis on Conversational Speech Transcriptions using Vocal Cues (2013)

PUBLICATION ♦ Spatiotemporal Patterns in Social Networks (SNSC'13)

- Gang Networks, Neighborhoods and Holidays: Spatiotemporal Patterns in Social Media (SocialCom'13)
- ♦ Heuristic Frequent Term-Based Clustering of News Headlines (ICCCS'12)
- ♦ Summarizing Public Opinions in Tweets (CICLing'12 poster session and IJCLA June'12)
- ♦ Etola: A News Headline Clustering Tool (ICDCIT'12 poster session)

SKILLS

- ♦ Python, C, PHP
- HTML, CSS, JavaScript, jQuery, Node.js, Django
- ⋄ PostgreSQL, MongoDB
- scikit-learn, NumPy, SciPy, NLTK, Matlab