NISARGA MARKANDAIAH

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EDUCATION

- **Carnegie Mellon University**, Pittsburgh, PA May 2013 (Expected)
  Masters of Science in Language Technologies, School of Computer Science

- **People's Education Society (PESIT)**, Bangalore, India May 2011
  Bachelors of Engineering in Computer Science

EXPERIENCE

- **Carnegie Mellon University,** Informedia research group August 2011-Present
  Graduate Research Assistant
  -Currently working on a government funded multimedia event detection task for video analysis
  -Working mainly on extracting relevant features; metadata analysis; key frame labeling

- **Diksha Technologies**, Bangalore, India Jan 2011-May 2011
  Software Engineering Intern
  -Development of an internal portal, XML to PDF conversion for Telecom Billing Services

ACADEMIC PROJECTS

- **Open QA:** Develop a UIMA based model for improving biological NER systems.
- **Language modeling:** use of n-gram and maximum entropy methods to create a language model for prediction of a fixed vocabulary of POS tags.
- **Text based information system:** Design of a search engine by creating inverted indices by lexically analyzing text documents; implemented variations of PageRank algorithm; performed text classification by implementation of a Naïve Bayes classifier & evaluate performance
- **Semi-supervised error correction of OCR:** use of machine learning based algorithms and Levenshtein distance between labels , to attempt correction of noisy French historic documents
- **Speech based search tool:** Make contents of Wikipedia available to visually impaired by implementing a voice controlled speech tool; TF-IDF voice based summarization as output
- **Pattern classification:** Use of a semi-supervised neural network methodology for optical character recognition of printed characters.
- **Air traffic control simulation:** Use of multithreading concepts to simulate various landing and take-off requests using a 3D graphical user interface provided by the XNA game studio.

TECHNICAL SKILLS

- C++, Java, Python**,** Unix shell scripting
- Experience on working with large datasets: Hadoop, openMP

RELEVANT COURSES

CMU: Machine learning; Information retrieval; Language and statistics; Entrepreneurship & Innovation in technology; Software engineering; Algorithms for natural language processing; Intelligent information systems*; Discourse Analysis*; Machine learning for public policy* (*Spring 2013)
PESIT: Data structures; Algorithms and design; Computer networks; database systems; system software

TECHNICAL PUBLICATIONS

- Nisarga Markandaiah, Vinay K N, Suhas B, *Adaptive Character Recognition using Neural Networks*, International Conference in Pattern Recognition and Computer Vision, 2010
- Devashish Thakur, Nisarga Markandaiah, Sharan Raj, *Reoptimization of ID3 and C4.5 decision tree*, International Conference on Computer and Communication Technology (ICCCT), 2010

EXTRACURICULARS

Avid literary enthusiast: Junior writer in CMUs tartan; wrote poems/articles for college magazine