Girish Kasiviswanathan

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Education

Aug 2015 - May 2017 (Tentative)

Master of Science in Computer Science, **Texas A&M University, College Station**
Graduate Coursework: *Algorithms, Artificial Intelligence, Machine Learning, Natural Language Processing, Sketch Recongition, Operating Systems*

CGPA: 4.00/4.00

Jul 2011 - Jul 2015

Bachelor of Technology in Computer Science and Engineering, **Manipal Institute of Technology**
Key Courses: *Design and Analysis of Algorithms, Distributed Systems, Probability and Statistics, Data Mining, Software Testing, Internet Technology, Digital Image Processing, Network Protocols, Relational Database Systems, Artificial Intelligence, Compiler Design, Parallel Computing*

GPA: 9.22/10.00

Technical Experience

Present

Graduate Research Assistant, **Texas A&M University, College Station**
Research focus: Cross document information extraction, applied machine learning for computational linguistics, knowledge representation

Advisor: Dr. Ruihong Huang

Jan 2015- Jun 2015

Software Development Intern, **Cisco Systems, India**
Optimization of End-to-End Serviceability guide: Mr. Shashidar Srinivasa
Built an analytics dashboard that ingests logs and traces streamed from various Cisco devices to to assist in serviceability and mine patterns conducive to future component design, and also worked on improving the web architecture of the application, as well as achieving scalability using the Hadoop framework

May 2014- Aug 2014

Summer Research Intern, **IBM Research Labs, India**
Spatio-temporal Analytics guide: Dr. Aditya Telang
Worked in the Information and Analytics department on modelling and mining geospatial data to solve classical problems such as prediction and trajectory similarity. My role involved synthetic data generation, surveying literature in the domain of trajectory mining and spatial indexing, evaluating our approach against these techniques, conceptualizing and implementing pruning methods, similarity metrics and graph-based algorithms in Java

IBM Watson for Education
Participated in an internal research initiative on harnessing the Watson pipeline to build new cognitive applications for education

I-CARE Winter School and Conference
Selected to be part of IBM's winter school on cognitive computing, covering the latest trends in machine learning, such as big graphs, reinforcement learning and deep learning

Jun 2013- Jul 2013

Project Trainee, **ATT Systems, India**
Assisted the team working on free-way toll collection software with testing, debugging, identifying use cases and design patterns

Areas of Interest

Algorithms, Artificial Intelligence, Information Retrieval, Natural Language Processing, Software Development

Skills

Languages:	Php, Mysql, C, ASP.NET, C++, Java, Python, HTML, Javascript, MongoDB
Other Software/Tools:	IBM BlueMix,Git, Hadoop, vSphere and ESXi, Eclipse,Unix, Sci-kit, NLTK

Technical Activities (Graduate)

- **Text Mining the Novel (Ongoing)**: Applying computational methods to literary texts for extracting socio-cultural influences, character networks, timelines and narrative schemas. Funded by the *Initiative for Digital Humanities, Media and Culture, Texas A&M University*
- **Cross Document Event Extraction (Ongoing)**: Working on using standard multi-pass sieving, clustering and matrix-based similarity methods to chain entities and events that repeatedly occur across multiple

documents, and using these links to augment existing knowledge bases.

- **Sketchography (Fall 2015)**: Built a pen-based based interface that recognizes freehand sketches made on a map, and compares it against existing knowledge about features in the map. The initial system is an education tool to allow geography students to practice drawing rivers on a map and give them interactive feedback. Our approach made use of shape context and template matching algorithms.
- **Event Extraction from Twitter (Fall 2015)**: Reviewed and implemented some of the standard techniques used for dealing with the poor language structure present in tweets.
- **Feed Recommendation (Fall 2015)**: As part of TAMUHack 2015, built a social media recommendation system on Python Flask, by leveraging concept extraction and sentiment mining tools from cloud services such as AlchemyAPI and IBM Bluemix

Course Projects :

- **Operating Systems (Spring 2016)**: Building a basic operating system kernel from scratch
- **Machine Learning (Spring 2016)**: Implementing classic machine learning algorithms such as decision trees and neural networks, and evaluating and comparing their performance on datasets from the UCI Machine Learning repository.
- **Artificial Intelligence (Fall 2015)** : Applying AI techniques such as A* search, DPLL, first order logic and constraint propagation to solve real world problems

Publications

- **An Intelligent Sketching Interface for Education using Geographic Information Systems,** A. Bhat, C. Mathew, G. Kasiviswanathan, S. Polsley and T. Hammond, Conference on Pen and Touch Technology in Education (CPTTE), 2016 (Accepted, yet to be published)

Selected Undergraduate Projects

- Presented a review seminar in college on modelling Wikipedia as a property graph and using it to solve entity ranking and document similarity problems, along with a programmatic demonstration of the concepts used.
- Served as system admin for industrial liaison and placement department of Manipal University
- Built an app as part of Microsoft Hackathon, that aimed to serve as a bridge between NGOs and prospective volunteers, and create a common platform for enlisting help for social causes.

Scholarships and Awards

July. 2011	Merit-based full tuition waiver for all 4 years of undergraduate course ($4000 per year)
June 2009	Distinction award for scoring 90+ in all subjects in nationwide examinations

Test Scores

Graduate Record Examination(GRE) : 333/340
Test of English as a Foreign Language(TOEFL) : 117/120