

Girish KASIVISWANATHAN

(Currently in 3rd semester, Seeking Full-Time Employment in Software/Data Science roles from June 2017)

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EDUCATION

AUG 2015 - MAY 2017 (Tentative)	Master of Science in Computer Science, Texas A&M University, College Station Graduate Coursework: <i>Algorithms, Artificial Intelligence, Machine Learning, Natural Language Processing, Sketch Recongition, Operating Systems, Software Engineering</i> CGPA: 4.00/4.00
JUL 2011 - JUL 2015	Bachelor of Technology in Computer Science and Engineering, Manipal Institute of Technology Key Courses: <i>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</i> CGPA: 9.22/10.00

TECHNICAL EXPERIENCE

SEP 2015- PRESENT	Graduate Student Researcher, Texas A&M University, College Station Research focus: Cross document information extraction, applied machine learning for computational linguistics, language models for social media data ADVISOR: DR. RUIHONG HUANG
JUN 2016- SEP 2016	Summer Research Assistant, Bio-Informatics Research Lab, Texas A&M Health Science Center <i>Integrated Outcomes and Clinical Feedback Loops</i> GUIDE: DR. DUANE STEWARD Collaborated with a team of clinicians and vets to develop a clinical data mining model to generate an earlier-proposed ontology. The role included writing ETL scripts to securely de-identify and pull data from contracted clinical sources while adhering to federal privacy laws, mapping different database schemas to the elements of a common ontology, and designing statistical models to fit the data.
JAN 2015- JUN 2015	Software Development Intern, Cisco Systems, India <i>Optimization of End-to-End Serviceability</i> GUIDE: MR. SHASHIDAR SRINIVASA Built an analytics dashboard that ingests logs and traces streamed from various Cisco devices 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 <i>Spatio-temporal Analytics</i> 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>I-CARE Winter School and Conference</i> 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

Software Development, Information Retrieval, Natural Language Processing, Data Engineering

SKILLS

Languages: C, C++, Python, Bash, PHP, Java, MongoDB, SQL
Libraries: NLTK, CoreNLP, Numpy, Scipy, Scikit, Keras, Hadoop, Matplotlib, Selenium, etc.
Other Software/Tools: IBM BlueMix, Git, vSphere and ESXi, Eclipse,

TECHNICAL ACTIVITIES (GRADUATE)

- **Text Mining the Novel:** 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 Co-reference Resolution:** Working on using standard multi-pass sieving, clustering and dependency parsing 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 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, including virtual memory, threading and file systems.
- **Machine Learning (Spring 2016):** Implementing and tuning classic machine learning algorithms such as decision trees, KNN, neural networks and dimensionality reduction, 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

SCHOLARSHIPS

AUG. 2016 - JAN 2017 Teaching Assistantship for CSE 121 (Introduction to Program Design and Concepts)
JULY. 2011 - JULY 2015 Merit-based full tuition waiver for all 4 years of undergraduate course (\$4000 per year)

TEST SCORES

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