Shuo Ma

Contact Information

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Summary

- *Have more than 4 years of C/C++ development experience.*
- *Proficient in scripting languages like Ruby and bash.*
- *Enthusiastic about building efficient softwares, and learning new knowledge and skills.*

Education

Current **Texas A&M University**, College Station, TX
M.S. in Computer Science
GPA: 3.67/4.0

June 2015 **University of Science and Technology of China**, Hefei, China
B.Eng. in Electronic Information Science
Thesis: "Music Algorithmic Composition" | Advisor: Zhibo Chen
GPA: 3.6/4.0

Work Experience

SUMMER 2014 **IFLYTEK Co., Ltd.**
Software Engineer Internship at the Department of Core-Technology
- *Developed a visualized demo using MFC to present voice conversion algorithms.*
- *Developed a web app using Adobe Flex for collecting voice samples from experimental subjects.*

Skills

Proficient: C/C++, Ruby on Rails, Bash, Matlab
Experience: Java, Javascript, LaTeX, SQL, Swift

Recent Projects

Current **Bio-data Curation Crowdsourcing Web-app**
Advisor: Dr. Duncan M. (Hank) Walker
- *Building a SAAS app for crowdsourcing of bio-data curation, using Ruby on Rails*
- *Incorporating Agile Development and TDD/BDD in the project*

Fall 2015 **Digital Circuit Sketch Recognition and Simulation**
Advisor: Dr. Tracy Anne Hammond
- *Designed and Implemented an improved sketch recognition algorithm for circuit diagrams using Javascript.*
- *A descriptive paper of the project has been accepted by CPTTE in Feb. 2016.*

May 2015 **Automated Music Composition**
Advisor: Dr. Zhibo Chen
- Experimental thesis project which used Genetic Algorithm to compose music of different genre, the music scales of which were used as fitness function
- Developed a Java Swing GUI program on top of the algorithm.

Relevant Courseworks

Current **Course: Machine Learning**
- Implemented neural network back propagation algorithm with momentum and cross-validation.
- Implemented ID3 algorithm with tree-pruning and cross-validation.

Fall 2015 **Course: Artificial Intelligence**
- Implemented and compared the performance of BFS, DFS and GBFS on a navigation problem.
- Implemented A search and used it to solve the classic AI search problem the "Blocksworld".*
- Implemented back-tracking algorithm for general Constraint Satisfaction Problems. Evaluated the effect of the MRV heuristic.
- Implemented a Resolution theorem prover which can be used to make inferences from a propositional knowledge base.
- Implement DPLL Algorithm and to applied it to solving a multi-agent coordination problem.

Fall 2015 **Course: Analysis of Algorithms**
- Implemented a network routing protocol using Dijkstra's and Kruskal's algorithms. Compared performance between different implementations of the routing algorithms.