HONGFANG LU

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Ph.D. Candidate in Materials Science and Engineering at Georgia Tech. Research focused on computer simulation. A programmer skilled in Unity (C#), Python and Matlab. Enjoy problem-solving oriented and challenging projects.

PROJECTS

Rotanect It | Developer, Designer | March 2016

Published 2D iOS board game developed based using Unity in C#.

- Sole developer of algorithms, scene design, UI design and persistence system.
- Familiar with the process of development and publishing through Apple App Store.

Bookworms | Developer | Spring 2018

Goodreads inspired book exploration and recommendation system, with d3 visualization.

- Design and implementation of Association Rule Mining, data collection and cleaning,
- Python packaging, debugging, poster design and documentation.
- Recall at 50 is 30% in the ARM model.

Comparison of Three Cities As Touring Destinations | Analyst | Spring 2019

This project utilizes data scraped using Foursquare api to create visualization and do machine learning analysis.

- London, Moscow and San Francisco are explored and analyzed.
- Different types of venues are collected, i.e. dining places, gyms, entertainment places, drinking places (coffee and bar).
- The geographical results are shown using Folium.
- The conclusion is that London is more similar to San Francisco than Moscow.

Demonstar Game AI | Developer, Analyst | Spring 2019

Demonstar is a retro shooter game. This project recreates the game in Python and uses data generated from random inputs to achieve a lower fatality and a higher firing efficiency.

- SVC, MLPC and NN used in training and prediction.
- Number of fatality dropped 30% on average (50% in best scenario).
- Firing efficiency increased 40% on average.

EDUCATION

Coursera
Deep Learning Specialization, Winter 2018
IBM Data Science Professional Certificate, Spring 2019
Machine Learning with TensorFlow on Google Cloud Platform, Spring 2019

GEORGIA INSTITUTE OF TECHNOLOGY, ATLANTA, GA
Ph.D. Candidate in Material Science and Engineering, 2016 – current
GPA: 4.0, selected courses: High Performance Computation (A), Data and Visual Analytics (A)
Awarded Christopher Sanders Endowed Fellowship

Tsinghua University, Beijing, China
Ph.D. Candidate in Material Science and Engineering, 2013 - 2016

Tsinghua University, Beijing, China
Bachelor of Science in Mechanical Engineering, 2009 - 2013
GPA: 90 / 100, Skills learned: C, JAVA, MCU
Outstanding Undergraduate Student (100 / 3600)

Programming Languages

Proficient:
Python, C/C#, Matlab

Familiar:
JavaScript, HTML, CSS
JAVA, Swift
JQuery, Bootstrap

Libraries and Softwares

TensorFlow, Keras
Mathematica, Matlab, Xcode
GitHub
SQLite, Spark, Hadoop, Pig
Illustrator, Photoshop, Premiere
Rhinoceros, CAD, Solidworks

Skills

Strategic Planning
Self-study
Problem solving
Communication
Collaboration
Critical and Logical Thinking
Mathematics and Statistics