Shuchen Liu

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EDUCATION

Emory University, Atlanta, GA	Aug 2012 - June 2016

B.A. in Computer Science
2nd major: Mathematics & Economics

Wuhan University, China	Sept 2010 – June 2012

transferred to Emory University

Wuhan Foreign Languages School, China	Sept 2007 – June 2010

High School Diploma, ranked top 0.1% provincially

SELECTED COURSES

· CS 255 Computer Architecture & Assembler Programming
· CS 323 Data Structures & Algorithms
· CMU's 15-213 Introduction to Computer Systems
· CS 377 Database Systems
· CS 424 Theory of Computing
· CS 450 Systems Programming
· Currently enrolled in Udacity Front End & Full Stack Nanodegree Program

RELATED EXPERIENCE

Dilks Lab, Emory University	March 2016 – Current

Research Assistant & Lab Programmer
Developed Java application for psychology study. Created 3D virtual environment for Cognitive Science research. Designed experiments studying visual perception of scenes in MATLAB.

SKILLS

Programming Languages
Java, Python, JavaScript, HTML & CSS, C, C#, M68000 Assembly, Verilog
Software, Framework & Database
React, Backbone.js, Unity 3D, MATLAB, LATEX, MySQL

PROJECTS

Memory Library
· Implemented POSIX-like malloc library including malloc, free, realloc, and etc. The allocator uses sbrk system call to interact with the kernel for heap memory allocation and maintains segregated free lists to minimize segregation and hence improve efficiency.

Interactive 3D Environment
· Designed and built a town-like virtual environment with **Unity 3D** engine.
· Implemented **C#** scripts for a first-person controller along with game logic design and events handling.

Cross-platform Subject Response Recorder
· Built an application GUI based on **Java** Swing Library, allowing users to set parameters for later recording.
· Leveraged multi-threading model to handle keyboard events in a timely fashion.
· Implemented visualization layer based on JFreeChart**.**