Xiaoyu Xu - Software Engineer

(631) 697-2708 xx450@nyu.edu

Education

- M.S. in Computer Science in **New York University** (GPA 3.6) 1/2014 - 12/2015
- M.S. in Electrical Engineering in **Stony Brook University** (GPA 3.73) 8/2011 - 5/2013
- B.S. in **Nanjing University of Aeronautics and Astronautics** (GPA 3.2) 9/2007 - 6/2011

Technical Skills

Language/Library: C/C++, Python, Javascript, Java, C#, SQL, PHP, HTML, XML, CSS
Database Systems: SQL Server, MySQL, DB2

Work Experience

Software Engineer Intern in Yahoo! 6/1/2015 - 8/21/2015

- Created a new Ad format called Billboard Splash for Yahoo Creative Platform (YCP).
- Build templates and add new features to YCP's Product Ads.
- Built sample MRAID and VPAID ads for YCP.

Academic Projects

Web-Applications

- Built a cheker game called Lines Of Action, implemented UI and game logic based on AngularJS, then integrated it into a gaming platform so people can register in and play with others. Made it an Android APP using PhoneGAP. Added some features like push notification and Facebook login. This app is **published in Google Play**.
- Built a web app where users can "gamble" playing the simple Rock-Paper-Scissors with other online-users in real time. Provided a blog function where users can edit their profile and post messages to their friends, and a forum function where users can discuss various topics. Using .NET MVC.
- Integrate Bay Area train routes, stations with a map using Google Map API, provide an add-on to get real arrive/departure times using API provided by Bart (Bay Area Rapid Transition). Using LAMP.

Computer Graphics (JavaScript, WebGL, HTML)

- Implement CG algorithms to build various effects such as shading, reflection, and refraction.
- Created a dog character, joggling in the woods, with controls to change his speed or mood.

Machine Learning & Data-mining (Python and C)

- Wrote a program which first trains itself with music in MIDI format, then can generate new melodies using learned patterns. Implemented with data mining algorithms and finite automaton
- Compute large data cube using Multi-way Algorithm, BUC, Star-Cubing.
- Mining Frequent item-sets with Apriori Algorithm, FP-growth Algorithm.
- Implement Naive Bayesian classification, decision tree induction to perform classification.

Network Programming (C)

- Implemented an On-Demand shortest-hop Routing (ODR) protocol for networks of fixed but arbitrary and unknown connectivity based on AODV algorithm. Allowing clients to find route to unknown server when sending requests. Using PF_PACKET socket and UNIX domain socket.
- Implemented a file transfer application for UNIX platforms based on UDP with timeouts and sliding window mechanisms, flow control, congestion control. Achieved TCP-like reliability for the transfer.
- Developped an application which implements ARP functionality to find Ethernet address of a target node using raw IP socket.
- Develop a robust server application which offers multiple services to multiple clients using TCP socket.