XUEJIE "RAFAEL" XIAO

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EDUCATION

Syracuse University 2011 – 2013
PhD student in Electrical and Computer Engineering
Tongji University 2007 – 2011
Bachelor in Software Engineering, GPA: 4.81/5, ranked 1/232

WORK EXPERIENCE

Google April 2010 – June 2011
Software Engineer Intern *Shanghai, China*

· Built the GWT-based front end of AdWords Importing Tools as a single-page application, and integrated with the AdWords Frontend, enabling customers to directly import their existing ads from other vendors' advertising platforms.
· Implemented the parsing code for advertisements from Czech Sklik in AdWords Importing Tools, which allowed customers to import their ads from Sklik to AdWords instantly.
· Implemented the PDF exporting feature for AdWords Proposal Tools using iText, which provided customers with a ready-to-print version of ads proposal reports.
· Implemented the backend code of the ads preview feature for AdWords Proposal Tools using BigTable as cache storage to reduce the loading time of preview ads.
· Implemented a compression prototype in C++ for storing billions of URLs in the AdWords system. Each URL was compressed separately for online CRUD operations, achieving an average compress ratio of 27%, and decompression time per URL of less than 1ms.

PROJECTS

Webruby (https://github.com/xxuejie/webruby), Author 2012 – Present

· Wrote Webruby, which allowed programmers to write Ruby code that runs in the browser. This was achieved by using emscripten to compile C-based mruby into JavaScript.
· Created mruby-js for calling JavaScript from Webruby, and mruby-gles, the OpenGL ES 2.0 bindings.

Cross-Job Hadoop (https://bitbucket.org/xxuejie/hadoop), Author 2012

· Created patches on Apache Hadoop that allowed reduce tasks to send output directly to map tasks of the next job, instead of writing intermediate data to HDFS first.
· Saved around 20% of the total run time and 60% of the data needed to transmit between different machines when running PageRank MapReduce jobs.

The Third Eye, Architect and Leader of 2-person team 2011 – 2012

· Designed and implemented a mobile sensing platform using Erlang. The platform could perform many sensing tasks (written in Lua scripts), including detecting WiFi signal strength, generating traffic maps or noise maps, collecting photos of certain locations, etc.

AWARDS

Google Peer Bonus, for my work on AdWords Proposal Tools January 2011
Google Excellence Scholarship August 2010
China's National Scholarship 2008, 2009
Syracuse University Graduate Fellowship 2011