Michael Quinn Hwang

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WORK EXPERIENCE

BlackRock – Software Engineer Associate   Aug 2011 – Current
Order Management Systems   New York, NY
- Developed and deployed the back-end servers handling financial exchange messaging that introduces a new type of FIX Indication of Interest message to BlackRock's electronic trading platform
- Implemented order and IOI opportunity matching algorithms for equities and fixed income that discover and rank relevant matches based on customizable preferences
- Enhanced BlackRock's heavily textual proprietary Java Swing framework to display IOI matches more visually, adding extendable features such as multi-colored table cell items and animated expiry timers

BlackRock – Software Engineer Analyst
Distributive Computing
- Researched and developed reusable distributed solutions in a team of five, providing Java libraries that implement caching, leader election, and MapReduce
- Created a Beta/Prod server architecture that splits requests on a configurable criteria, such as security type or trade venue, to facilitate a controlled parallel release and testing process
- Implemented a framework built on ZooKeeper that distributes traffic among a cluster of servers using a virtual node algorithm which provides data affinity and ordering
- Developed and released the firm's first next-gen web app using Backbone.js that manages Cassandra data clusters, allowing users to connect to nodes, manipulate data through the UI, and execute queries

NearTheBox.com – Web Design Portfolio   Jun 2004 – May 2011
- Co-Founded a local web firm and acquired freelance opportunities from local businesses
- Developed graphic design skills by working with clients to wireframe and create both personal and corporate websites using Adobe Photoshop and Fireworks
- Gained significant front-end web development experience using HTML, CSS, and JavaScript

INDEPENDENT PROJECTS

BWS – BlackRock WebSockets   July 2013
- Led a team of three interns and won a company hackathon by building a gateway between BlackRock's proprietary messaging system and HTML5 WebSockets
- Enabled all BlackRock web applications to function in real-time using pre-existing back-end servers
- Integrated BWS with three teams since the hackathon and BWS now serves as the foundation of a project to port BlackRock's primary Java Swing GUI to the web

SMART – Social Media Analysis and Reporting Tool   Aug 2012
- Participated in a hackathon with two teammates to build a web app that extrapolates sentiment from tweets and correlates the data to stock prices and trade volumes with dynamically generated graphs

Team SMO: Ensemble – Mobile Music App   Aug2010 – Jan 2011
- Worked in a team of three to publish an iOS app that enabled users to listen to songs uploaded from the browser, share playlists, and view listening histories

ACTIVITIES

Michael and Humphrey – Acoustic Guitar Duo   Feb 2007 – Aug 2011
- Performed acoustic guitar shows at events such as Kollaboration in Ann Arbor and East Lansing
- Recorded and sold two self-produced albums featuring over 25 original songs
- Studied acoustic guitar and drums for 7 years, classical violin for 13 years

EDUCATION

University of Michigan College of Engineering   Class of 2011
Bachelor of Science in Computer Science   Ann Arbor, MI
- Regent Merit Scholar
- GPA 3.23/4.00