Szu Han Chang

szuhanchang@gmail.com
www.szuhanchang.com

80 Dapu Road, #3, 27E
Shanghai, China
15000021262

8601 Staghouse Mill Ct
Jacksonville, FL 32244
617.505.4312

Objective

Find a fulfilling, challenging position as a software engineer at a dynamic company that understands technology where my contributions can make a difference.

Relevant Industry Experience

CTO @ ModelMaker, *September 2010 – April 2011*: modelmaker.pillarofeden.com

- Architected the entire application business logic and database schema.
- Designed and implemented a user-friendly backend for administrative control, including integration with TinyMCE for non-technical personnel to edit content.
- Added image upload and server-side image manipulation functionality via GD.
- Improved site usability with the judicious use of jQuery.
- Administrated staging and production systems running Ubuntu and RedHat.
- Integrated user authentication and authorization functionality.
- Integrated full internationalization and localization capabilities.
- Started Selenium testing to ensure no regressions occur.

Software Engineer @ Lime Brokerage, *Feb 2009 – May 2010*

- Architected and programmed a real time risk metric calculation engine in C++ used to process a variety of equities, futures, and options market metrics used in analyzing performance and risk of automated trading algorithms for each brokerage account. This engine then communicated the metrics (up to 1000/sec) via a Lime proprietary RPC messaging system to the control plane.
- Developed the client side portlet in Flex for viewing the real time risk calculation metrics. The data was obtained from the control plane configuration via our web services backend implemented in Java and sent to the Flex client-side frontend via AMF. The data was requested using a GUI that generated the PULP code (see below) necessary to calculate the metric.
- Designed and implemented PULP, a custom programming language used to request real time risk metrics. PULP language parsing and interpretation was implemented using ANTLR and integrated with the risk engine through the ANTLR C API and code generation feature.
- Experimented with CUDA, an nVidia architecture used to take advantage of the parallel processing power of GPUs to reduce computational running time.
- Wrote unit tests in JUnit and UnitTest++ to ensure correctness of code.
- Worked with J2EE using a custom MVC architecture through JBoss and Tomcat, Hibernate + MySQL for data store, and Adobe Flex for front end visualization to create portlets for clients to access various account, market, and risk data.

Cofounder @ Fuel for Hire, *Summer 2007 – 2008*: www.fuelforhire.com

Fuel for Hire is a startup founded by myself and two other Boston University alumni to improve transparency in the technology job market. I was a junior and they were seniors when we started, and after they graduated we continued development remotely until our competitor Glassdoor dominated the market.

- Collaborated to design and implement architectural and feature requirements.
- Worked remotely via Skype and IM with cofounders on product development.
- Set up and administered the staging and production servers (Ubuntu, Apache, MySQL, PHP) as well as the SVN repository.

Satellite Communication Software Intern @ MIT Lincoln Laboratory, *Summer 2007*

- Received government security clearance to work on "Secret" classified projects.
- Designed and implemented a filter for separating satellite messages by protocol and content type, cutting debug time by 300% by only showing relevant acknowledge and error messages.
- Added datasets consisting of an XML/Java GUI frontend for input and a C++ backend for various satellite protocols in a production environment.

Open Source Contributor @ Horde, *Summer 2005*: wiki.horde.org/Project/Sedule

- Accepted into the Google Summer of Code for the Horde Framework open source project as a rising sophomore and earned a $7500 stipend.
- Started the Sedule project, a module to help managers create and edit schedules for employee shifts based on their availability.

http://permalink.gmane.org/gmane.comp.horde.cvs/34788

Academic Record

BA/MA in Computer Science @ Boston University, *May 2008*

GPA: **3.59** in computer science, **3.51** overall - Cum Laude

- Earned both the Bachelor and Master of Arts degrees in Computer Science in four years through the Boston University BA/MA program.
- Selected by faculty and served as the BUCS 2008 student graduation speaker.

Programming Languages: Java, C++, C, PHP, Python, Perl, Ruby
Version Control: Subversion, CVS, Git
Web Technologies: HTML, CSS, JavaScript, AJAX, XML, JSON, REST, SOAP
Database Technologies: MySQL, including performance optimization

Dual United States and Republic of China (Taiwan) citizen.
Native English speaker, fluent in Mandarin Chinese.