

Nathan Tsai

Profile I am an engineer not afraid to solve traditional problems with unconventional solutions. Learning how to untangle complexities motivates me to continue searching for answers.

Experience **Stanford and San Francisco State University**
Researcher - 2012

Researched and wrote a paper on novel techniques for queries performed on large sets of small-molecules using the Baldi/Hirschberg inequality and LSH hashing. Reduced query costs by orders of magnitude.

RentJuice
Lead Developer - 2011-2012

Developed internal tools and headed development on the iOS application. Primarily used Python and Objective C. Sold in 2012 to Zillow.

BigMachines
Professional Services Engineering Intern - 2011

Worked with various clients to configure and design work-flow and database protocol. Designed and implemented a complete database rework for Beckman-Coulter. Completely rewrote logic rules for inventory management.

RoomioTV
Systems and Software Lead - 2010-2011

Designed a Unix-based OS for generic set-top boxes for use in the hospitality industry. Prototyped early design for software and wrote infrastructure documentation for future work.

California Institute of Technology
Researcher - 2008-2010

Worked on and built core components of Distributed Data Analysis for Neutron Scattering Experiments (DANSE), a platform for distributed data analysis for neutron scattering experiments. Researched and performed analysis and modelling on large data-sets. Wrote internal tools for graphing, modelling, and running virtual scattering experiments.

Education **Franklin W. Olin College of Engineering**
ECE and E:Bio - 2010-2016

Technical Skills

I work in and with a large variety of languages, environments, APIs, and software packages. These include, but are not limited to: Python, C++, MongoDB, MySQL, Scheme, Ajax, C, SVN, Git, Objective C, R, MatLab, Octave, LaTeX, jQuery, Bootstrap/CSS, Node.js/Meteor/JavaScript and HTML5.

Contact **Email:** Nathan@NathanTsai.com
Phone: 650-453-8724