

# JASON SHUM

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501 Beale Street, San Francisco, CA 94105

## PROFESSIONAL EXPERIENCE

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**Distributed Systems SWE** at Turn, *Redwood City* 09/2014 - Present

- Rewrote and improved scalability and uptime of our petabyte-scale data warehouse solution that aggregates raw data into compressed storage format for SQL-style queries.
- Implemented and improved in-house Hadoop monitoring solution that allows monitoring of specific job types via Regex matching on job fields and user-defined metrics based on expressions of counter values
- Helped lead a cross-team effort for migration of metrics pipeline from Graphite to OpenTSDB + Grafana

**Tech Director** at MED International, *Providence*, medinternational-us.org 08/2013 - Present

- MED is a 501(c)(3) non-profit that aims to increase the availability of medical equipment of resource-poor hospitals via custom designed software and technician training programs
- Led and managed product development process from design to pilot rollout in three hospitals in Tanzania and Ghana of Zanehealth, a webapp that allows hospitals to track medical equipment through its lifecycle, from purchase to repair to retirement or resale to ensure that it is utilized in the most cost-efficient manner
- Recruited, trained and managed eight person software development/design team
- Part of five member team that performed sales negotiations with over twenty hospitals and product rollout in one hospital in Tanzania in summer 2014
- Reached regional finals for Hult Prize sponsored by Clinton Foundation, million dollar prize business case competition to 'Solve Non-Communicable Disease in the Urban Slum'

**Engineering Intern** at Viglink, *San Francisco* 06/2013 - 08/2013

- Automated user behavior reports, which increased new customer identification by 20%
- Optimized garbage collection of JVM to handle 4000 requests per second

**Associate** at Ernst & Young - Mergers and Acquisitions Department, *Shanghai* 05/2012 - 06/2012

- Performed HR due diligence on biomedical trading firm to advise Fortune 600 client on potential acquisition
- Analyzed inventory data and made recommendations to consumer goods distributor's supply chain management

## EDUCATION

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**B.Sc Computer Science, Brown University** Major GPA: 3.8/4.0 05/2014

Related Coursework:

- Machine Learning, Algorithms, Computational Probability and Statistics, Programming Languages

## ACADEMIC EXPERIENCE

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**Head Teaching Assistant** for Introduction to Computational Biology, *Brown University* 08/2013 - 12/2013

- Created genome assembly project including automated synthetic data generation, Graphviz visualization package and graph assembly algorithm
- Designed project for motif finding with  $k$  mismatches using branch and bound algorithm on search tree
- Led three-person team to handle course matters, including course administration, grading and weekly recitations

**Teaching Assistant** for Probabilistic Models in Computer Science, *Brown University* 01/2013 - 05/2013

- Led discussions on probabilistic analysis of algorithms and bounds for randomized algorithms

**Research Assistant** at Ben Raphael Computational Biology Group, *Brown University* 07/2012 - 08/2012

- Developed tool to parse and visualize biological database XML entries to protein interaction graph
- Assisted in developing graphical model using heat equation to identify cancer pathways algorithmically

## TECHNICAL STRENGTHS/PERSONAL

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<b>Proficient</b>	Java, Python, C, SQL, Bash
<b>Familiar</b>	Matlab, Ruby, Racket, R, PHP
<b>Frameworks</b>	Hadoop tools (MapReduce, Oozie, Pig, Hive), JVM tools (Hibernate, Spring, Mockito, TestNG/JUnit) Web frameworks (Jekyll, Rails)
<b>Tools</b>	LaTeX, Vim, Git, IntelliJ, SublimeText
<b>Language</b>	Mandarin (fluent), Cantonese (fluent)
<b>Interests</b>	longboarder, volunteer tutor, weekend jogger, Quartz/The Economist reader