JASON SHUM

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EDUCATION

B.Sc Computer Science, Brown University *Major GPA: 3.75/4.00* Expected: 05/2014

- *Machine Learning*
- *Algorithms*
- *Computational Probability and Statistics*
- *Programming Languages*
- *Software Engineering, Computer Vision, Introduction to Computational Biology*

PROFESSIONAL EXPERIENCE

Tech Director at Med International, *Providence* 08/2013 - *Present*

- Led three person team on hospital inventory management software development for use in hospitals in Zanzibar
- Automated work order submission and delegation which increased equipment uptime by 15%
- Recruited and trained members of software development team

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

- Designed and implemented for business intelligence data pipeline in MySQL/Hive/Pig/Sqoop
- Generated automated reports of user behavior, which increased new customer identification by 20%
- Implemented earnings per click estimator and integrated with backend to redirect to optimized target
- Optimized memory management and code performance of production code to process 4000 requests per second

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

- Performed HR due dilligence 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

ACADEMIC EXPERIENCE

Head Teaching Assistant for Introduction to Computational Biology 08/2013 - 12/2013

- Led three-person team to handle course matters, including course administration, grading and weekly recitations
- Designed and implemented 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

Teaching Assistant for Probabilistic Models in Computer Science 01/2013 - 05/2013

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

Teaching Assistant for Introduction to Computer Systems 08/2012 - 12/2012

- Designed assembly language project involving reading assembly code to 'solve' binaries
- Led discussions on computer systems topics

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

PROGRAMMING PROJECTS

Whisk 01/2012 - 05/2012

- Designed and built desktop application that parsed recipes, search for ingredient by synonyms
- Implemented python web crawler to populate ingredient-item dictionary with thousands of entries

Python Interpreter in Racket 08/2012 - 12/2012

- Designed a core language and implemented its interpreter in Racket

TECHNICAL STRENGTHS/PERSONAL

Proficient	Python, Java, C, Pig, Hive, SQL
Familiar	Matlab, Ruby, Racket, R, PHP
Frameworks	Hadoop, Hibernate, Spring, Mockito
Tools	LaTeX, Vim, Git, IntelliJ
Language	Mandarin (fluent), Cantonese (fluent)
Interests	soccer, cycling, Taekwondo black belt, classical music (tuba, trombone, euphonium, cello player)