PHILOS TSAI

3A Systems Design Engineering – University of Waterloo | c9tsai@edu.uwaterloo.ca
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SKILLS/QUALIFICATIONS

Languages

Bash, Python, PHP, Javascript, Java, C++
HTML5, CSS3, Coldfusion, MySQL, NoSQL, PlyQL
Tools

Druid, Cassandra, Ansible, Puppet, Chef, HDFS AWS S3, AWS Glacier, ¡Query, Matlab, Arduino **Undergrad Research** – *Human-computer System* Interface design for collaboration in emergency

responses and/or military command

Courses

Data Structures and Algorithms, Linear Systems and Signals C++ Programming, Circuits and Instrumentation, Probability and Statistics, Design Engineering, Hardware Design

WORK EXPERIENCE

Jan - Apr 2017 San Francisco, CA

Associate Database Administrator, Rubicon Project

- · Company-wide automated reports with **Bash** and **Python** scripting
- Built **Druid/Imply** cluster with **Python PyDruid** and **HDFS** plugins to replace MySQL reporting queries, reduced *2 hour* query runtimes down to *4 minutes*
- Constructed **Cassandra** cluster to store financial records to safely retain sensitive data with no single point of failure
- · Enhanced PHP dashboard functions/display with JQuery and Dashing
- · MySQL Database refreshes and restores from backups
- · Optimized AWS S3 space usage by 80TB

May - Sep 2016 San Francisco, CA

MySQL Database Administrator, Rubicon Project

- Built dashboard to manage dozens of servers across multiple data centers using PHP,
 JQuery, HTML and CSS
- · Large-scale file management and data analysis using Bash scripts in Linux environment
- · Re-structured **MySQL** server CNF configuration process with **Ansible,** speeding up CNF file updates from a *few days to less than 10 minutes*
- · Managed master-slave replication, currently running on Tungsten

Sep - Dec 2015 Toronto, ON

Access Control Administrator, Toronto Transit Commission

- · Regulated the rights to networks/applications/databases for all TTC employees
- · Acted as main liaison between department heads and coordinated complex tasks

Jan - May 2015 Toronto, ON

Web Developer, Public Works & Governmental Services Canada

- · Upgraded government production web application to become twice as efficient using **HTML, CSS, Coldfusion, JavaScript**
- · Designed and built workplace's wireless network, solved networking and hardware issues

EDUCATION/RESEARCH

Jan - May 2016

Undergraduate Research Assistantship - Human-technology interaction study

· Designed and developed simulation software for large tabular surface in Java

Sep - Jun 2019

Systems Design Engineering - Candidate for Bachelor of Applied Science

University of Waterloo, Waterloo, ON, Canada

AWARDS

2015

Queen's Venturer's Award - Scouts-Canada

Highest scouting award for leadership, teamwork, environmental and community contributions