MARK CHEN

(858)242-9619 | itisnanful@gmail.com | Github: https://github.com/mAsCuLiNe

EDUCATION

University of California San Diego, B.S. in Mathematics - Computer Science   Sep 2011 - Dec 2015

TECHNIQUE SKILLS

Language:	Java (4yr), Python (4yr), C++/C, MATLAB
Database:	PostgreSQL, MySQL, ActiveRecord, MongoDB
Cloud & System:	AWS EC2/S3/RDS, Linux, RabbitMQ, Heroku, Google App Engine
Web development:	HTML5/CSS3/JavaScript, Ruby on Rails, AngularJS, NodeJS, JQuery, Django, MeteorJS
Concepts:	REST, SOAP, Database design, Design pattern, SQL optimization

PROJECTS

Empachat — Team Leader/Full Stack Developer (MeteorJS, MongoDB, Python)   Feb 2016 - Mar 2016
A chat app that connects users with similar emotions and plays songs of similar emotions
Github: https://github.com/BitTigerInst/Empachat | Website: empachat.meteor.com
- Design app architecture with comprehensive resource discovery
- Mentor frontend and backend developers and help tackling hardest bugs

Distributed Data Crawler — Software Developer (Python, bash)   June 2015 - July 2015
*A Python-RabbitMQ crawling system with the ability to collect tens of terabytes in days with **minimal cost**.*
Github: https://github.com/mAsCuLiNe/flexibloader
- Designed & implemented the core of the master-slave mechanism, and 16 crawlers, using **design pattern**. Achieved minimal cost by memory optimization, machine failure retrieval, and deployment acceleration.
- Achievements: Scaled up to 1000 concurrent crawling jobs per second. Completed deploying 90 **AWS EC2 Linux** machines in 3 secs. Collected 40 million Flickr images (8 TB) in 70 hours with $100. Collected and parsed data from all 1 million Chinese Wikipedia pages in 2 hours with zero cost.

Moorgoo — Frontend Developer (Ruby on Rails, html/css/javascript)   June 2014 - January 2015
An app for hosting videos that help students on UCSD courses and for making private tutor appointments
Website: http://lovemoorgoo.herokuapp.com
- Setup and maintain Ruby on Rails backend. 70% test coverage with **RSpec**. Design and implement whole UI

WORKING EXPERIENCE

Full Stack Developer — UCSD Cognitive Science   February 2015 - present
- Worked with a group of data scientists on face similarity research. Self developed 4 data crowdsourcing tools with full stack web development (**AngularJS, Python, html/css/js, Django, AWS, JQuery, MATLAB**)
- Self developed and comprehensively tested a stimuli distributor. Distributed 900 Human Intelligence Tasks without missing any incomplete ones. Github: https://github.com/mAsCuLiNe/simi_server
- Data analysis and image processing using MATLAB and Python.

Data Engineer Intern — TuSimple Inc.   March 2015 - Sept 2015
- Worked with a group of data scientists on a recommendation system based on computer vision.
- Managed 20+ TB data from 30+ sources on **Linux** file system. Processed > 1TB data daily with **Python**.
- Developed web element detectors. Achieved 90% precision rate on web image caption detection.
- Implement data labeling tools by using **python selenium** and by generating in-browser highlights. Achieved image labeling rate of 1800 images per hour per person.
- Automated visualization of webpage-image data via **selenium** and **SQL**. 10x faster than visualizing manually.

COURSES

Operating System	Data Mining and Predictive Analytics	HCI Design
Server-side Web Application	Machine Learning	Numerical Analysis I & II