

## Interests

Machine Learning ♦ Deep Learning ♦ Artificial Intelligence ♦ Object Detection ♦ Backend Systems  
♦ Reverse Engineering ♦ Numeral Computation & Optimization

## Skills

Python	Keras, Pytorch	MongoDB, Redis
Javascript	jQuery, Vuejs	Numpy, Scipy, Cython
HTML5	Flask, Sanic, Curio	Scikit-learn, OpenCV
CSS3	Bootstrap, Element-ui	Amazon AWS, Aliyun

## Education

### Bachelor of Science in Mathematics

Fudan University

SHANGHAI, CHINA

SEPTEMBER 2002 - JULY 2006

## Experience

### Suolai Techonology(Self-employment)

Chief Mathematical Officer, Technical Director, Product Assistant, Architect, Backend Developer, Frontend Developer, AI Researcher, Algorithm Developer, Data Cleaning Engineer, Database Administrator, Deployment Engineer, Network Administrator

SEPTEMBER 2015 - FEBRUARY 2019

The company was founded by myself with two friends, we focused on small, tough, profitable projects. Such as "Shanghai License Plate Bidding", "Quant Trading", "Rushing Market Limits", "Coupon Hunting". As cheif techincal person, I lead these projects, and implement most of them.

- Plate Bidding: AI Decaptcha: Deep Learning - SSD - Yolo
- Plate Bidding: Anti-AntiCheating
- Plate Bidding: Scalable Managing System
- Plate Bidding: Simulation and Backtesting
- Stock Market Data Fetching and Processing: Reverse Engineering - Async High Concurrency Crawler
- Stock Market Backtesting: PerTick Backtesting, More Realistic Trade Simulation (than all online platforms e.g. Ricequant, Joinquant)
- Stock Market Daily Limit Rushing: Buy stock just before it reaches daily upper limit price - 300 Aliyun ECS - Reverse Engineering - Cloud Management
- Coupon Hunting: Automating Bank Accounts (with USB safe sticks), Mobile Captchas, Third-Party System Reverse Engineering - Participate in Coupon Deals, Efficiently gather the benefits.

### Caignen100 Incoporation

Technical Director

APRIL 2014 - SEPTEMBER 2015

Caignen100 was a small startup company, it employed about 30 people, mostly software engineers. We focused on mining business data and providing business insight.

- Research and use "Topology Data Analysis", a sub field of machine learning
- Research and use "Association Rule Learning", in recommendation
- Comments Monitoring System: Crawler - Data ETL - Analysis
- Data Visualization, Numeral Computation Optimization

### Favbuy

Technical Director

AUGUST 2012 - MARCH 2014

Favbuy was a small startup founded by a former SEM expert.

We started to build a flash sale aggregation site, after that was failed, we turned to monitoring whole taobao.com, analyze their sales and comments: about 200 million of items updated daily.

- Taobao Monitor: 500 Amazon EC2 for crawling - 20 Amazon EC2 for database - Redis for indexing and distributed ETL - Customized Map Reduce System
- Flash Sale Aggregation: Crawling - Data ETL - Classification (Machine Learning)

### Hupu Sports (hupu.com)

Backend Leader

NOVEMBER 2011 - AUGUST 2012

Hupu is a famous Chinese sports website.

I was in a gaming team trying to develop a webpage named "Hupuworld".

I lead the gaming backend team, also help web backend solving high concurrency problems.

- Hupuworld Game: gevent + mongodb + flash - observer pattern for fighting
  - NBA Live Text Broadcasting: Live translation - nodejs high concurrency broadcasting
- 

## Projects

### [cchars\(not open-sourced yet\)](#)

A general image captcha breaker

2018-2019

- Row based recognition: CNN + GRU + CTC-loss
- One shot Object Detection: SSD - Modified VGGan
- Yolo3 Modified: added Chinese characters, 4000+ categories

### [github.com/observerss/sinal2](#)

Sina Level2 Stock Data Client

2017

- Download Level2 Stock Data from Sina
- Asynchronous + MultiCore

### [github.com/observerss/ngender](#)

Guess gender by (Chinese) name

2015

- Naive Bayes based
- 10 lines of core code

### [github.com/observerss/textfilter](#)

Lightning fast keyword filter(masker) from text

2012

- Filtering Text by using Deterministic Finite Automation
- Same Technic used by GFW(The China's Online Censoring System)

### [code.google.com/p/simplecd](#)

A VeryCD clone, millions of emule resources

2009

- python + sqlite, simplistic architecture
- serves over 100 thousands user views per day