

# Shaohao ZENG

## PERSONAL DATA

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## EXPERIENCE

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| <i>Aug 2014 - Current</i>  | B.S. in Computer Science<br>Sun Yat-sen University, Guangzhou<br>GPA: 3.7/4.0  |
| <i>Oct 2017 - Dec 2017</i> | Intern in <a href="#">TuSimple</a><br>Infra Engineer Intern, High Performance Computing (HPC)<br>TuSimple is a startup dedicated in autonomous truck driving. I designed and implemented some infrastructure components. |
| <i>Apr 2017 - Oct 2017</i> | Research Assistant in <a href="#">Netlab @ SYSU</a><br>Mentor: Di Wu<br>I participated in the design and implementation of a large-scale commercial video recommender system.  |

## PROJECT

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| EXTERNAL DNS:   | An intern project; I implemented a service that tracked and managed the DNS records of Docker services run in Rancher; Developers would not need to handle the DNS table manually.   |
| VIDEO RECSYS:   | A lab project; I participated in the development of a commercial video recommender system for Dr. Peng Group, China's largest non-state owned telecom operator; I was responsible for the design and implementation of the content-based recommender module.     |
| KAGGLE CONTEST: | Ranked Top 9% (221/2488) in <i>Kaggle's Two Sigma Connect: Rental Listing Inquiries</i> ; The task is to predict users' preferences to different listing in NYC; Conducted several feature engineering techniques and ensemble models to reduce prediction loss. |
| ANDROID APPS:   | Course work; I have participated in several Android projects, including a chat APP of which I wrote for the server side and a contact APP of which I wrote the front-end.  |
| OBJ VIEWER:     | Course work; I implemented a renderer in Core OpenGL and it could show a 3D model stored in an OBJ file.   |
| OS PROTO:       | Course work; Written in C and x86 Assembly and can boot from real mode to protected mode. Binaries from hard disk can be loaded and run concurrently.  |
| JSON PARSER:    | Written in C++; Bytes are parsed using the recursive descent algorithm.  |

## SKILL

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SPARK:	Familiar with Spark API and have implemented Latent Semantics Indexing (LSI) algorithms in Spark for the Recsys project.
PYTHON:	Familiar with Python and conventional scientific computing modules including Numpy, Scipy, Pandas and scikit-learn.
C++:	Familiar with C++ and STL, including the recent standard C++ 11.
SQL:	Familiar with common SQL syntax .
WINDOWS/LINUX:	Familiar with common uses and some developing techniques in these OS.

## ONLINE COURSE

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PROGRAMMING LANGUAGES:	Taken in Coursera; I learnt the paradigm of functional programming by Standard ML; I implemented an interpreter for a simple S-expression like language by Racket; I learnt fundamental concepts of OOP using Ruby.
ALGORITHMS: DESIGN AND ANALYSIS	Taken in Coursera; I learnt algorithm design techniques (Divide & Conquer, Dynamic Programming and etc.) and analysis techniques ( complexity analysis, probabilistic proof techniques and etc.).
MACHINE LEARNING	Taken in Coursera; I learnt a bunch of models and learning algorithms.
DEEP LEARNING	Taken in Coursera; I learnt the concept and practice of Deep Learning, some optimization techniques and Convolutional Neural Network.
MACHINE LEARNING FOUNDATIONS	Taken in Coursera; I learnt the statistical learning theory, the fundamentals of machine learning techniques.