# Hanyu Yang

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# **OBJECTIVE**

I'm a graduate student looking for internship in Software Engineer or Data Engineer. I aspire to engage in Internet of Things and Data Science and Engineering area to pursue a smarter life.

# **EDUCATION**

# Carnegie Mellon University, Pittsburgh, PA & Silicon Valley, CA

Master of Science in Information Technology, Mobility, Expected May 2018

Coursework: Introduction to Computer Systems (15-513), Web Application Development (15-637), Information Security (14-741), Computer Networks (14-740), Distributed Systems (15-640), Cloud Computing (15-619)

#### Singapore Management University, Singapore

Exchange, Information Systems, December 2015, Major GPA 3.9

# Zhejiang University, Hangzhou, China

Bachelor of Engineering, Computer Science, July 2016, Major GPA 3.93

#### **EXPERIENCE**

# Linux Programmer, Assist in programming tasks for Mellon College of Science (Python)

Carnegie Mellon University, Pittsburgh, PA, October - present 2016

• Anomaly analysis on emails of server log files with learning algorithm

# Research Student, Experimental Evaluation for Pivot-based Metric Index (C++)

Singapore Management University, Singapore & Zhejiang University, China, September 2015 - May 2016

- Implemented three index structures (LAESA, CPT, EP) for two metric similarity queries (Range, kNN)
- Improved query performance by replacing Pivots Selecting Algorithms for three index structures

# Back-end Engineer (Intern), Cross-Border e-Commerce Web Application (Java)

Jiayun Data Science and Technology, Hangzhou, China, May - July 2015

- Developed back-end business logic and data access based on Spring and Hibernate framework
- Generated automated scripts for back-end request and response testing with Jmeter

#### **PROJECT**

#### **Information Retrieval and Web Search (Python)**

Zhejiang University, Fall 2014

 Developed the Crawler, Tokenizer, Stemmer, Indexer and Corrector part of a search engine built for Fox Sports NBA news and players

#### **Smartphone Software Development (Android)**

Zhejiang University, Spring 2015

 Designed the Activities logic of a GPS-based real-time bus reminder App and undertook the real-time locating and destination detection part

# **Student Research Training Program (Python)**

Zhejiang University, Spring 2015

 Utilized Arduino to collect and process data from an insole sensor, and designed a gait pattern detection algorithm to trigger tasks

#### **Database System Design (C++)**

Zhejiang University, Fall 2014

• Implemented the Interpreter, Catalog Manager and Buffer Manager of a mini database system, in support of all basic standard SQL queries

# **Software Engineering (PHP + MySQL)**

Zhejiang University, Spring 2015

• Wrote the Administrator Control Panel part of a Campus Forum System, to manage the boards and posts in the forum, as well as user privileges

#### **Software and System Security (Assembly + C)**

Singapore Management University, Fall 2015

• Exploited Buffer Overflow vulnerability on open source software and performed Return-to-libc attack to print out specific variables

#### **SKILL**

- Programming/Scripting Languages: C/C++, Python, Java, JavaScript, HTML, CSS, Android, PHP, Octave
- Frameworks and Tools: Django, jQuery, pySpark, Git, Spring, Hibernate

#### **COURSES**

• Machine Learning (Stanford@Coursera), Data Science and Engineering with Apache Spark (UCB@edX), Overview of Internet of Things (NTHU@icourse163)