

# Hanyu Yang

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## EXPERIENCE

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### Software Development Engineer (Java/Python)

**Amazon, Boston, MA, March 2018 - present**

- Built a scalable ETL pipeline with AWS services at Alexa Information Domain

### Teaching Assistant for course Cloud Computing (Django)

**Carnegie Mellon University - Silicon Valley, Mountain View, CA, August - December 2017**

- Developed a peer grading system to improve course scalability by reducing TA's grading time

### Software Development Engineer Intern (Java)

**Amazon Web Services, Seattle, WA, May - August 2017**

- Implemented an exponential way to improve deployment speed by 50% with DynamoDB and SWF
- Integrated the exponential option and a progress monitor into the Ruby-on-Rails website
- Built a song quiz Alexa skill with flask-ask framework and SSML output in Global Intern Hackathon

### Research Assistant, Assist in programming tasks for Mellon College of Science (Python)

**Carnegie Mellon University, Pittsburgh, PA, October 2016 - June 2017**

- Used procmail recipes to filter emails of server logs and wrote real-time scripts to analyze anomaly
- Contributed to paper Preemptive Infrastructure Maintenance Through Adaptive Pattern Search

### 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

## EDUCATION

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

**Master of Science in Information Technology, Mobility, August 2016 - December 2017**

Course: Introduction to Computer Systems, Web Application Development, Telecommunications & Computer Networks, Cloud Computing, Distributed Systems, Computer Vision Apps, Machine Learning, Mobile Hardware for Software Engineer

### Singapore Management University, Singapore

**Exchange, Information Systems, August - December 2015**

### Zhejiang University, Hangzhou, China

**Bachelor of Engineering, Computer Science, September 2012 - July 2016**

## PROJECT

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### Nano Blogging Site (Django)

**Carnegie Mellon University, Fall 2016**

- Built a Twitter like nanoblogging site Grumblr with Django MVC design, and features like ModelForm, Signals and AJAX updates.

### Map Calendar Web Application (JavaScript)

**Carnegie Mellon University, Fall 2016**

- Undertook the map interactions and logic design for page synchronization of a Location-based calendar web app using Mapbox API.

### Dynamic Memory Allocator (C)

**Carnegie Mellon University, Fall 2016**

- Overwrote the system level Dynamic Storage Allocator, to allocate (malloc), reclaim (free), split, and coalesce memory space from heap.

### Computer Vision based Sudoku (C++/OpenCV)

**Carnegie Mellon University, Spring 2017**

- Built an iOS application with OpenCV libraries to let users interact with a printed Sudoku puzzle on their devices.

### Twitter Analytics Web Service (Java)

**Carnegie Mellon University, Spring 2017**

- Designed a web service from ETL to backend schema optimization on AWS to support queries with throughput and budget requirement.

### File Caching Proxy (Java)

**Carnegie Mellon University, Spring 2017**

- Implemented a Proxy with LRU Cache Replacement Policy and Check on Use Cache Consistency approach

## SKILL

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- Programming/Scripting Languages: Java, Python, C/C++, JavaScript, HTML, CSS, SQL
- Frameworks and Tools: AWS, Git, Django, OpenCV, Ruby-on-Rails, JQuery, Docker, Spark, Kafka