

# BOYI (ELLIOT) LI

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## EDUCATION

**Carnegie Mellon University** - Information Network Institute

MOUNTAIN VIEW, CA

Master of Science in **Information Technology**

Aug.2017 - Dec.2018 (*Expected*)

**Courses:** Introduction to Computer System, Distributed System, Advanced Cloud Computing, Principles of Software Construction, Telecom Networks, Information Security, Mobile and IoT Service

**Tongji University** - School of Software Engineering

SHANGHAI, CHINA

Bachelor of Engineering in **Software Engineering**

Sept.2011 - July.2015

## SKILLS

**Proficient:** Golang, Java, JavaScript, HTML, CSS, Python

**Intermediate:** Objective-C(iOS), C/C++, Swift, SQL, Shell

**Platform & Tools:** UNIX/Linux, Docker, Mesos, Kubernetes, Kafka, Spark, Cassandra, Git, Emacs, L<sup>A</sup>T<sub>E</sub>X

## EXPERIENCE

**PayPal Inc.**

SAN JOSE, CA

Software Development Engineer Intern (**Golang, Shell, Mesos, Kubernetes, GCP**)

May.2018 - Aug.2018

- Evaluated REX-Ray and Portworx container storage orchestration performance and integrated them into homegrown container orchestration system based on Apache Mesos and Aurora.
- Extended homegrown docker compose executor to deploy stateful applications using mobility IP.
- Contributed to REX-Ray open source project, resolved issue that unable to mount/unmount GCP disk.

**Microsoft**

SHANGHAI, CHINA

Technical Support Engineer (**HTML, JavaScript, CSS, C#**)

July.2015 - July.2017

- Provided and developed customer solutions related to Office 365, based on distributed Azure cloud directory to ensure high availability and site resilience with primary backup and ARIES recovery models.

**Masters of Arts Anwendungsentwicklung GmbH**

HAMBURG, GERMANY

Software Development Engineer Intern (**HTML, JavaScript, CSS, C#**)

May.2014 - Nov.2014

- Maintained a web application for crew management based on .NET platform using HTML, JavaScript, and CSS.
- Leded interns and developed a desktop system for crew and financial management in C# using MVVM pattern.

## SELECTED PROJECTS

**Paralleled Data Visualization Framework (Java, Swing)**

May.2018 - Apr.2018

- Designed and developed framework supports data plugins to extract raw data from multiple sources (crawling, RESTful APIs) and visualization plugins (PieChart, GeoChart) to visualize processed data.
- Optimized paralleled computation for multiple data-sets to speed up processing 3.84 times faster.

**Data Engineering for ETL Processing (Python, Spark, HDFS, AWS)**

Jan.2018 - Mar.2018

- Designed a scalable distributed iterative machine learning program using Apache Spark to handle 500GB crawled dataset and output preprocessed data to HDFS.
- Optimized to compress data and reduce frequency of Spark's shuffle operations for iterative training.

**Elastic Auto-Scaling Load Balancer (Python, Terraform, AWS)**

Jan.2018 - Mar.2018

- Implemented an elastic load balancer by invoking AWS Cloud APIs to programmatically provision and de-provision instance resources based on the loads patterns.
- Optimized auto-scaling strategy to handle high RPS (Request Per Second) and reduce instance hours.

**Information Dissemination Service (Golang)**

Oct.2017 - Dec.2017

- Implemented a RPC-based message server supports subscribe, unsubscribe users, post message, etc.
- Implemented consistent hashing based back-end storage servers with a lease-based cache consistency mechanism that cache frequently-accessed messages to improve the performance and scalability of the system.

**Distributed Bitcoin Miner Based on LSP (Golang)**

Sep.2017 - Oct.2017

- Implemented Live Sequence Protocol (LSP) network protocol that supports robust communication with slide window and back-off resend, handles lost, duplicated, corrupted packets, and failing clients and servers.
- Built a distributed bitcoin miner upon LSP, which harnesses the power of multiple distributed processors.

## HONORS & AWARDS

17'	Champion Award of Rocket Program (Top 2)	Microsoft CSS (GCR)
16'	1st Prize of Microsoft OneWeek Hackathon (Top 1)	Microsoft CSS (GCR)
15'	WWDC 15 Scholarship Winner (Globally 350 students)	Apple Inc.
14'	1st Prize of Microsoft Imagine Cup 2014, Tongji Campus (Top 2)	Microsoft Corporation
	Academic Excellence Scholarship (Three consecutive years)	Tongji University