# ETHAN HAO

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#### **EMPLOYMENT**

## **Senior Software Engineer**

# **DePaul University**

July 2015 - June 2017

- Implemented a video recording project which can directly record MP4 video format as well as provide the video source to the monitoring platform.
- Implemented the classroom monitoring platform which can monitor the video and audio of up to 100 classrooms.

# **Software Architect**

## **China Sport Lottery Technology**

April 2014 - July 2015

- Developed a distributed lottery trading system based on Linux. Reviewed all codes in addition to performing code optimizations.
- Researched improvements to the architecture of this system and made it more manageable.

# **Senior Software Developer**

#### **China Futures Group**

Nov 2012 - April 2014

- Led the development team for the Futures Trading System for Enterprises based on Windows platform. Supervised implementation of the architecture and the core components.
- Led the development team for the Risk Management of Futures Trading System for Enterprises which can remove or reject all orders and set the threshold of triggering the risk.

# **Senior Software Developer**

### **Ensurebit**

Aug 2005 - Nov 2012

- Led a team to implement projects which Lenovo had outsourced. Projects were focused on improving the user's experience of his Laptop. Similar to Veriface, Easycapture, Idealife, Ikey Security solution, etc.
- Developed the custom product PowerShadow (<a href="http://download.cnet.com/Power-Shadow/3000-2094\_4-10359673.html">http://download.cnet.com/Power-Shadow/3000-2094\_4-10359673.html</a>), which extended existing Windows security functionality.

# **Software Developer**

Lenovo

Aug 2003 - Aug 2005

- Implemented the virtual disk driver based on Window 98 using VXD driver framework.
- Implemented the Blowfish and MD5 algorithm using C++.

# **EDUCATION**

Chicago, IL University of DePaul

Fall 2015 - Jun 2017

• M.S.E. in Software Engineering. Current GPA: 3.9/4.0.

#### Xi An, China

Northwestern Polytechnic University

Fall 1999 - Jun 2003

• B.S.E. in Software Engineering.

## **Projects**

- Lottery Trading System (2014 2015). Complex distributed system based on Linux and focused on high performance and availability lottery trading. C++
- Futures Trading System for Enterprise (2013). A system which lets all the staff share one exchange account to do futures trading. Also includes its own settlement subsystem. C++,C#
- Risk Management System for Futures Trading System (2013). A risk management system which can prevent improper futures trading by adhering to predefined rules.
- **DePaul Classroom Monitoring Platform** (2016). A direct way to monitor all of the classrooms. C++, DirectShow, Windows Media Format, Windows Media Foundation.
- **VeriFace** (2005-2012). A Windows desktop application which is pre-installed on Lenovo laptops. C++, DirectShow, D2D.

# **Languages and Technologies**

- C++; C; C#.NET; PL/SQL; JavaScript,;
- Redis, ZooKeeper, Message Queue, COM, TCP/IP, Socket etc.