

## Wei-Ming “Ben” Liu

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## EMPLOYEE HISTORY

### **QNAP,** Taipei, Taiwan

Software Engineer, 05/2018~current

- Code signing project:
  - Develop signing server and deploy using Docker container (Python Flask & PostgreSQL)
  - Integrate code signing mechanism into software package build process (Python & Bash)
  - Develop SDK and document for developers to sign their packages (Python & Bash)
  - Develop anti-tampering mechanism to detect suspicious modification on files
  - Develop CGI to display anti-tampering information on UI (C on Linux)
- Develop system configuration storage utility (C on Linux, SQLite)
  - Provide CLI and C API for developers to use
  - Build as Debian packages, and managed by systemd
- Develop an application to remove malware from our devices (C on Linux)
  - Once a new malware is reported, need to update pattern soon
  - Download new pattern from company website and execute it to clean malware

### **Nexusguard,** Taipei, Taiwan

DevOps, 06/2017~03/2018

- Build staging environment for company's DDoS mitigation service
- Implement monitoring mechanism using Elastic stack, Telegraf/InfluxDB, and Kafka

### **Trend Micro,** Taipei, Taiwan

DevOps, 10/2016~04/2017

- Migrate services from on-premise datacenter to AWS
- Monitor backend service. Track and fix problems
- Upon request, update configuration (zookeeper) and deploy developers' new release
- Write script for deployment automation. Use AWS CloudFormation to manage resources and write Chef cookbooks for AWS OpsWorks

**Vivotek,** Tainan, Taiwan

Algorithm Developer, 06/2015~09/2016

- Develop algorithm to combine data from multiple cameras. Implement using Visual C++  
A patent has been issued for this algorithm, see following link:  
<http://twpat-simple.tipo.gov.tw/tipowoc/tipowekm?!!FR^I543611>
- Collect data to verify accuracy of my algorithm, and fine-tune performance
- Use OpenCV to do image stitching, based on output of my algorithm rather than feature points
- Develop validation tools (Visual C++) to verify accuracy of our people-counting algorithms

**Promise Technology,** Taipei, Taiwan

Software Developer, 07/2013-03/2015

- Develop storage product "FileCruiser" (similar to Dropbox) using Python & Java:
  - Develop content search functionality using Elasticsearch
  - Use Apache Tika to extract text content from several file types (e.x. pdf, doc, xls, etc...)
  - Implement video/audio streaming feature (Back-end, using Tornado)
  - Write test cases and do tests for the product
- Develop hyper-convergence product "VSkyCube" using OpenStack:
  - Study OpenStack components, (Nova, Neutron, Glance, etc) and put them together to work
  - Develop admin/user portal for VDI service using Django and AngularJS
  - Develop iOS client for VDI

**Auryn Inc.,** Los Angeles, CA, USA

Mobile Application Developer, 04/2012-05/2013

- Develop interactive children's books/games on mobile devices (C++ & Unity 3D with C#)  
Alphabet Animals: <https://www.geekswithjuniors.com/blog/2013/3/14/alphabet-animals-a-slide-and-peek-adventure.html>  
Santa Kid by James Patterson (interactive children's book)  
Breitville by Mary Engelbreit: <https://www.youtube.com/watch?v=vAM0pCavjP8>  
Where do balloons go? By jamie lee curtis: <https://www.youtube.com/watch?v=coKIzRI9nb8>
- Use physics engine and voice recognition in Apps (Box2D & OpenEars)
- Develop iPhone photo sharing app (Objective-C, use AWS S3 for photo storage)

**Neowiz Entertainment,** Irvine, CA, USA

Back-end Developer, 02/2011-12/2011

- Develop iPhone online poker game: <https://youtu.be/Vi9jFcxlRe8>
- Develop backend using Python Twisted framework and MySQL database
- Develop AI bots

- Deploy and maintain service on AWS

**WT Microelectronics**, Taipei, Taiwan (<http://www.wtmec.com/WT/?lang=en>)

Field Application Engineer, 07/2005-07/2007

- Help customers to integrate our products into their projects
- Provide technical support for customers
- Held training session teaching customers to use our products

**Holtek Semiconductor**, Hsinchu, Taiwan

Digital IC Designer, 03/2003-09/2004

- Develop microcontrollers
- Integrate new module into microcontrollers (e.x. USB)
- Refine existing design to lower power consumption
- Create test pattern for manufacture testing

## TECHNICAL SKILLS

Linux, Python, C, Visual C++, Java, AWS, PostgreSQL, MySQL, iOS, Unity 3D

## PERSONAL PROJECTS

Develop iPhone action game using cocos2d and distributed it on App Store

<https://itunes.apple.com/us/app/q-monkey/id408658345>

<http://www.youtube.com/watch?v=2E1FmTwFYUI>

## EDUCATION

**University of Southern California**, Los Angeles, CA

Aug 2009 ~ May 2011

M.S. Computer Science GPA: 4.0 Academic Award

[https://drive.google.com/open?id=0B8\\_IPoEcE19ES3IyMDIBMktlQVlk](https://drive.google.com/open?id=0B8_IPoEcE19ES3IyMDIBMktlQVlk)

**California Lutheran University**, Los Angeles, CA

Nov 2008 ~ Jul 2009

Computer Science

**National Taiwan University**, Taipei, Taiwan

Sep 1997 ~ Jun 2001

B.S. Electrical Engineering

## CERTIFICATE

**Machine Learning**, Stanford University

Jun 2017

<https://www.coursera.org/account/accomplishments/certificate/BS6MXK4N8FE3>