# DEREK QIAN

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#### **EMPLOYMENT**

## **Teaching Assistant**

# **Portland State University**

Fall 2011 - Present

Courses: C++ Programming Language; Data Structures; Software Engineering; Compiler Design

## **Software Engineer**

## Skypine Co., Ltd. - www.skypine.cn

**Spring 2011 – Summer 2011** 

- Managed a team of four engineers to ensure weekly targets achieved on time.
- Made company more marketable to potential clients by participating in porting Windows CE 6.0 for the new platform with a faster processor. Visual Studio, Platform Builder, C++
- Helped gain business by customizing the touch screen calibrator, which had been un-operational for eight months prior. C++, Win32 API, Windows CE, touch driver
- · Worked with one college to solve EMI/EMC problem for radio tuner. RF, microwave

## **Software Engineer**

# Seuic Co., Ltd. - www.seuic.com

Spring 2007 - Fall 2009

- Made the project plan; managed a team of three engineers to ensure weekly targets achieved. MS project
- Wrote software to assist manufacturing process; doubled the productivity of the assembly line. C++, WTL
- Created an innovational algorithm for FAL of MLC NAND flash; saved thousands of dollars for the company.
- Improved the software-based Hamming ECC encoder/decoder; reduced time from  $O(n^2)$  to O(n).
- Designed a storage strategy for the navigator product; reduced booting time from 90s to 45s. C++
- Implemented position data mixer with the input from GPS and gyro, and output in NEAM0183 format; solved the problem of navigation in the tunnels. C++
- Developed a driver and a demo application for an IC card operator, which was a key selling point to clients.
  C++, MFC, ClearCase
- Kept in touch with the antenna design partner to assure the quality of the antenna. RF, microwave

# **EDUCATION**

#### Portland, OR

#### **Portland State University**

Fall 2011 – Present

- M.S. in Computer Science. GPA: 3.91
- Coursework: Software Engineering; Operating Systems; Parallel Programming; Computer Architecture

# Nanjing, Jiangsu, China

# **Southeast University**

Fall 2000 - Winter 2007

- M.S. in Electrical Engineering, April 2007. Top 10%
- B.S. in Electrical Engineering, June 2004. Top 10%
- Coursework: Programming and C Language; Data Structures and Algorithm; Electromagnetic Theory; Fields and Waves in Information Electric Technique

#### **TECHNICAL EXPERIENCE**

#### **Projects**

- **Binary Profiling Tool** (Fall 2012). Application profiling tool working with binary executable without recompilation and re-linking. C++, Linux, IPC, Dyninst, git
- Parallel Sorting (Spring 2012). Parallel sorting using share memory and message passing respectively. C/C++, multithreading, pthread, MPI
- **coDoc** (2012). Code and specification manager, maintains the relationship between the code and the specifications. C++, Java, Eclipse, JNI, poppler, Cario, XML
- CrazyPuzzle (Fall 2011). A math puzzle game for Android platform. Java, Scrum, Agile

#### **Languages and Technologies**

- C++; C; Java; Python; makefile; shell script; x86/ARM assembly; SQL; XML
- Visual Studio; Eclipse; git/svn; gcc; emacs/vim; ClearCase
- · English; Chinese