# **Binyan Zhao**

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#### **EDUCATION**

#### 2011-Present UNIVERSITY OF VICTORIA

Victoria, BC, Canada

PhD candidate, Dept. of Electrical and Computer Engineering

- Topic of Research: Optimization and scheduling problems in Smart Grid
- GPA: A-
- Courses: Convex Optimization, Wireless Communication, Communication System

## 2008-2011 BEIJING UNIVERSITY OF POSTS AND TELECOMMUNICATIONS

Beijing, China

MASc, School of Information and Communication Engineering

- GPA: 86/100
- Courses: Embedded Programming, Digital Signal Processing, Computer and Network Theory

# 2004-2008 BEIJING UNIVERSITY OF POSTS AND TELECOMMUNICATIONS

Beijing, China

BSc, School of Computer Science

- GPA: 85/100;
- Courses: Information Security, Communication Theory, Data Structure and Algorithms, C Programming,
  Object Oriented Programming
- Minor in Engineering Management in the Department of Economics and Management

# **SKILLS**

Programming Language

- Practical experience with C (1.5 year), Assembly language (0.5 year), LabView (0.5 year), MATLAB(2 year)
- Learning experience with C++, Python, HTML, Javascript

#### Tools and others

- Usage experience with source control tools, SVN and GIT
- Familiar with Linux programming tools, VIM, GCC and GDB
- Understanding of Agile software development and scrum practices
- Work experience with testing instrument models, test case, test reports
- Experience with application of TCP/UDP, Serial Ports, CAN bus communication
- Experience with RF measurement equipment, i.e., Spectrum Analyzer, Signal Source Analyzer in the lab, .etc

#### **PUBLICATIONS**

Binyan Zhao, Yi Shi, Xiaodai Dong, Wenpeng Luan, Jens Bornemann, "Short-term Operation Scheduling in Renewable-powered Microgrid: A Duality-based Approach", IEEE Trans. on Sustainable Energy, Volume 5, Issue 1, January, 2014.

Binyan Zhao, Yi Shi, Xiaodai Dong, "Pricing and Revenue Maximization for Battery Charing Services in PHEV Markets", IEEE Trans. on Vehicular Technology, Volume 63, Issue 4, November, 2013.

Binyan Zhao, Xiaodai Dong, Jens Bornemann, "Service Restoration for a Renewable-Powered Microgrid in Unscheduled Island Mode", IEEE Trans. on Smart Grid, Volume 6, Issue 3, December, 2014.

#### INTERNSHIP EXPERIENCE

# 2015.1-2015.8 Platform Software Designer Co-Op at Ericsson (Vancouver Office).

The main task of this Co-Op is to assist the Target Independent and Target Dependent code splitting for Download Manager in SSR.

- Experience of operation and developing on Linux system
- Download Manager related operations on SSR and SSR Sim
- Practical experience in C
- Git commit process and UTF test with python

# 2014.5-2014.12 Manufacturing Test Engineering Co-Op at Alpha Technology Ltd.

The main task of this Co-Op is to develop automatic test programs in LabView for PCBAs.

- Experience of serial port and CAN bus communication
- Development of test programs and application with LabView and C
- Making use of the automatic test equipments, e.g. power source, DMM and automatic switches
- Experience of the cooperation of different hardware and communication ports in LabView

#### 2013.12-2014.4 Testing Project for the communication availability of panel enclosure for Schneider Electric

The objective of the testing project is to assess the availability of several low power wireless technologies, i.e., WiFi, Bluetooth, and Bluetooth Low Energy (BLE), in the short range communicating in the Panel Box.

- First period: portable point-to-point testing with BLE
- UDP and TCP communication with wifi module
- Design a graphic UI for the wifi communication with C/C++
- Serial Port communication with VC

# 2009.11-2010.11 Internship at Potevio Ltd. PRC for TD-LTE project

I completed several models in the company using C, Assembly Language:

- Design, implementation, verification, and test of FFT module with transforming length of 2048 and 4096
- Implementation, verification, and test of a synchronization module base on the received SNR data
- De-rate matching module: which is the reverse procedure of the rate matching for turbo code
- HARQ module: which is inspired by ACK-NACK message to determine to do retransmission or not

# HONOURS AND ACTIVITIES

2004 Olympic Mathematical Competition Third Prize 2004/2005/2006/2007 Third-Class Scholarship in Undergraduate study 2005 Excellent Volunteer of 50th Anniversary of the fo

Excellent Volunteer of 50th Anniversary of the founding of the University Volunteer for the international students welcome team orientations in UVic

2012.9 UVic Fellowship

2011/2012/2013/2014 Teaching Assistant in UVic for two years

#### **HOBBIES**

Swimming and Yoga