I'm a man who loves travelling by myself. On every vacation in university, I spend about 7 to 10 days as a backpacker, travelling around China. Since it’s a self-guiding tour, no guide will come to help me arrange anything. As a result, before travelling, my friends and I have to prepare everything by ourselves, such as scheduling, confirming the routes and buying tickets. We also need to put deep thought into our plans, and think about its dangers.

It’s a commonly held belief that travelling, especially backpacking, is a great way to expand one’s horizons. What I see during my trips can make me more knowledgeable about the world around me. More importantly, before start travelling, I need to get everything prepared for this journey. My mind has arrived at the destination, even if my body is still at the starting point. This way of thinking is good for cultivating a holistic outlook as well as making us think about problems from a wider, longer term perspective.

Before pursuing my master degree in 2009, I thought deeply about what I wanted to study. My major was computer science. From the beginning of undergraduate year, most of my classmates engaged in the study of Windows. As a student who wasn’t good at programming, there were two alternatives for me to choose - one was to continue the study of Windows, and the other was to explore something else. If I chose the former, there were at least two benefits for me. Firstly, there were lots of documents for reference. The second one was that there were numerous people engaging in the study of Windows. When I met problems, I could consult and discuss with them. However, from the other side, there were also some disadvantages. More references possibly led to less creativity, and the more people engaged in studying Windows, the more competitive pressure I would feel.

In a nutshell, if I engaged in Windows related work, I could start my career very easily. However, there was no guarantee that I could be outstanding among the researchers. If I chose to do something else, it might be very difficult. But as long as I persist with my goal, I could make something different.

Fortunately, my mentor had the same idea. He recommended me to work on mobile development. At that time, there were very few people engaging in this area in China and I had no idea about smart phones. My mobile phone was an out of date Philips phone, so that it was very hard for me to start to develop applications. Despite the difficulties, I trusted my mentor and myself. Not only because I had only chosen him after careful research and recommendations by my senior students, but also that we shared the same opinions. So I started to search mobile development related information. After learning a few concepts about smart phones and mobile Internet, I faintly found that this industry was conductive to the theory that computers and Internet would become smaller, faster and more tightly related with people's lives. Many things could be done in this area. So I chose to engage in studying iOS.

Everything was hard in the beginning. There were lots of differences between iOS and Windows. For example, iOS was an UNIX-like operating system, which was a complete, but closed, ecosystem. Its main programming language Objective-C, and jailbreak were all strange fields lacking of information at that point. So I learned by myself, week by week, in a hackintosh. And this lasted for almost a year. During this period of time, I read the book "Learn Objective-C on the Mac", input the code on the book into Xcode and checked the result by running the simulator. However, the code and the UI were hard to be associated with each other. Besides, I searched those half-UNIX concepts like backgrounding on Google and tried to understand them, but they were really hard to understand. When my classmates published their papers, I even wondered what I was doing during these several months. When they went out and play, I had to read code alone in the dormitory. When they had fallen asleep, I had to keep on working in the lab. Although these things made me feel lonely, they benefitted me a lot. I learnt a lot and became more informative during this period. As well, it made me become confident. The more knowledge I got, the less lonely I felt. A man can be excellent when he can bear the loneliness. What you pay will finally return and enrich yourself. After one-year of practice, in March 2013, the obscure code suddenly became understandable. The meaning of every word and the relationship of every sentence became clearer. All fragmented knowledge appeared to be organized in my head and the logic of the whole system became explicit.

So I sped up my research. In April 2011, I finished the prototype of my master thesis and got high praise from my mentor who didn’t keep high expectation on my iOS research. Since then, I changed from a person who felt good to a man who was really good, which signified my pass of entry level of iOS research.

In the past few years, I made friends with the author of Theos, DHowett, consulted questions with the father of Activator, rpetrich and quarreled with the admin of TheBigBoss repo, Optimo. They were the people who solved most of my problems along the way. During the development of SMSNinja, I met Hang Wu, (the second author of this book). As research continues, I met a group of people who was doing excellent things but keeping low profile and finally I realized I'm not alone—We stand alone together.

Taking a look back at the past five years, I'm glad that I made the right choice. It's hard to imagine that you can publish a book related to Windows with only 5-years of research. However, this dream comes true with iOS. The fierce competition among Apple, Microsoft and Google and the feedback from market both prove that this industry will definitely play a leading role in the next 10 years. I feel very lucky that I can be a witness and participate in it. So, don't hesitate, come and join us, right now!

When received the invitation from Hang Wu to write this book, I was a bit hesitant. Due to the large population in China, there were fierce competitions in all walks of life. I summarized all accumulated knowledge from countless failures and if I shared all of them in details, would it result in more competitors? Would my advantages be handed over to others? But throughout the history of jailbreaking, from Cydia and CydiaSubstrate to Theos, all these pieces of software were open source and impressed me a lot. It was because these excellent engineers shared their "advantages” that we could absorb knowledge from and then gradually grew better. ‘TweakWeek’ led by rpetrich and ‘OpenJailbreak’ led by posixninja also shared their valuable core source code so that more fans could participate in building up the ecosystem of iOS jailbreak. They were the top developers in this area and their advantages didn’t get reduced with sharing. I was a learner who benefitted a lot from this sharing chain. Moreover, I intended to continue my research. If I didn't stop, my advantage would stay and the only competitor was myself. I believed sharing would help a lot of developers who were stuck at the entry level where I used to be. And sharing could also combine all wisdom together to make science and technology serve people better. Meanwhile, I could make more friends in this community. From this point of view, writing this book can be regarded as a long term thought, just like what I did as a backpacker.

Ok, What I said above is too serious for the preface. Let me say something about this book. The content of the book is suitable for the majority of iOS developers who are not satisfied with developing Apps. There are even more practical examples and details in this book than my master thesis. And if you want to follow up, please focus on our official website http://bbs.iosre.com and our IRC channel #Theos on irc.saurik.com. Together, let us build the jailbreak community!

Here, I want to say thank you to my mother. Without her support, I cannot focus on my research and study. Thanks to my grandpa for the enlightenment of my English studying, having good command of the English language is essential for communicating internationally. Thanks to my mentor for his guidance that helped me grew fast during three-year master career. Thanks to DHowett, rpetrich, Optimo and those who gave me much help as well as sharp criticism. They helped me grew fast and made me realized that I still had a lot to do. Thanks to Codyd51, DHowett, Haifisch, Nexuist, Nitron, Tyilo, uroboro and yrp for the suggestion and review of this book. Also, I would like to say thank you to my future girlfriend. It is the absence of you that makes me focus on my research. So, I will share half of this book’s remuneration with you :)

Career, family, friendship, love are life-long pursuit of ordinary people. However, we cannot get them all, and have to give up some of them. If I unintentionally offend someone here by pursuing and giving up something, I would like to sincerely apologize for my behaviors and thank you for your forgiveness.

At last, I want to share a poem that I like very much. Despite regrets, life is amazing.

The Road Not Taken

Robert Frost, 1874 – 1963

Two roads diverged in a yellow wood,

And sorry I could not travel both

And be one traveler, long I stood

And looked down one as far as I could

To where it bent in the undergrowth;

Then took the other, as just as fair,

And having perhaps the better claim,

Because it was grassy and wanted wear;

Though as for that the passing there

Had worn them really about the same,

And both that morning equally lay

In leaves no step had trodden black.

Oh, I kept the first for another day!

Yet knowing how way leads on to way,

I doubted if I should ever come back.

I shall be telling this with a sigh

Somewhere ages and ages hence:

Two roads diverged in a wood, and I--

I took the one less traveled by,

And that has made all the difference.

In memory of my Grandpa Hanmin Liu and Grandma Chaoyu Wu,

snakeinny