

Yizirui Zhou

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Education

University of Chinese Academy of Sciences

M.Sc, 3.76

Beijing

2012.9–present

Xidian University

B.Eng, 3.65

Xi'an

2008.9–2012.7

Work Experience

Institute of Computing Technology

Research Assistant

Beijing

2013.6–present

- Wireless Networking Research:
 - Study the scheduling algorithms in Multiuser-MIMO (MU-MIMO) wireless network.
- Software Defined Radio Platform:
 - Developed and maintained a distributed network system (C++, Python, Shell)

Research/Project Experiences

Rateless Coding in wireless network

Researcher

NSFC Project

2013.1–2013.6

- Rateless Coding:
 - Study the Spinal and Strider rateless code, build emulation platform to evaluate its performance.
 - Ameliorate the encoding and decoding procedure in Strider, improve their performance in MIMO networks.

User Selection in MU-MIMO WLAN

Researcher

NSFC Project

2013.6–2014.6

- User Selection Algorithms:
 - Study the user selection algorithms in MU-MIMO WLAN
 - Build non-linear multiple objectives optimization model to optimize both throughput and equity.
 - Decompose the complex global optimization problem into a multi-step optimization problem and proposes GreedyMax algorithm to reduce the computation complexity.

Software Defined Radio Platform

Developer

NSFC Project

2013.6–2014.1

- Software Defined Radio
 - Developed a SDR system based on GNU Radio and USRP.
 - Build C++ blocks to process digital signals, including frame encapsulation/analysis, coding/decoding, modulation/demodulation, etc.
 - Using Python script to test the function of blocks.

Android Developing

Developer

Open Source Project

2014.1–Present

- Android APPs developing:
 - Be familiar with Android developing environment, developed Android network applications.
 - Read source codes of Android library, including Cocos2dx, OpenGL and Webkit, developed Android apps based on them.

Publications

- Yizirui Zhou, Anfu Zhou, Min Liu, "OUS: Optimal User Selection in MU-MIMO WLAN", Submitted to IEEE ICC, 2015

Patents

- Yizirui Zhou, Shuang Chen, Anfu Zhou, Min Liu, "A new adaptation method in TCP keepalive mechanism", CN201310610828, 2013
- Yizirui Zhou, Anfu Zhou, Min Liu, "User Scheduling mechanism in MU-MIMO WLAN", CN201410303039, 2014

Honers

- National Scholarship(1%), Ministry of Education of China, 2009
- Scholarship for Academic Excellence(1st level), Xidian University, 2010
- Scholarship for Academic Excellence(2nd level), Xidian University, 2009
- Scholarship for Academic Excellence(2nd level), Xidian University, 2011
- First prize in Mathematical Modeling competition, Xidian University, 2010
- Third prize in ACM/ICPC programming competition, Xidian University, 2010
- Merit Student, Xidian University, 2011

Technical Skills

Languages:: C++, JAVA, Python, Lua, Shell

Frameworks:: Linux development, Android development

Tools:: Xcode, Eclipse, Vim, Git, Visual Studio, Matlab

Languages

Mandarin: Native proficiency

English: Professional working proficiency