Ding Zou
Research Assistant

Tucson, AZ - Email me on Indeed: indeed.com/r/Ding-Zou/a5606c34be341f70

Willing to relocate to: CA - CO - NV
Sponsorship required to work in the US

WORK EXPERIENCE

Research Assistant
University of Arizona - January 2011 to January 2017

Developed the pthreads-based C/C++ system simulator to evaluate multidimensional coded modulation over 1,000km few-mode
fiber (FMF) transmission.
• Developed Iterative distance-based clustering inspired optimum signal constellation design for additive Gaussian noise channel.
• Developed high parallel FPGA-based hardware architecture for adaptive LDPC coded modulation, the bit error rate of 10-15 has
been demonstrated for 6.4Gb/s throughput for fiber-optics and free space optical communication.
• Binary search tree and backtracking is employed to locate the first and second minimum in one pass, thus reduces both computational complexity and memory usage in the binary LDPC hardware architecture.
• Min-max algorithm is adopted in update the trellis involved in check node processor in the non-binary LDPC hardware
architecture.
• Dynamic programming technique is adopted to find the minimum path, which reduces the time complexity from ����(���� $) to ����(����������), in the generalized LDPC hardware architecture.

Research Intern
University of Arizona - May 2015 to December 2015

• Evaluated hard-decision forward error correction codes for access networks.
• Demonstrated a FPGA-based real-time OFDM-aggregation and de-aggregation efficient mobile front-haul transmission over 80km
SSMF.

Research Intern
University of Arizona - May 2012 to August 2012

Designed several offline digital signal processing modules for DP-QPSK 6,000km long-haul optical transmission.

EDUCATION

Ph.D. in Electrical and Computer Engineering
University of Arizona - Tucson, AZ
January 2017

M.S. in Electrical and Computer Engineering
University of Arizona - Tucson, AZ

December 2012

SKILLS

C++ (6 years), JAVA (2 years), MATLAB (6 years), PYTHON (Less than 1 year), VERILOG (4 years)

ADDITIONAL INFORMATION

Technical Skills
• C/C++, Java, Python, MATLAB, Verilog, Vivado, MPI, OpenMP.