

Zafar Takhirov

HW/SW Engineer

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Profile

I am a 3rd year PhD student at Boston University, working towards my degree in Computer Engineering. While my work focuses on digital design and error mitigation, my non-work interests range widely from information theory (go Shannon!), quantum computing, grandfather paradox, Star Trek, Little Mermaid, "why is the grass green?", 1Q84, etc., etc., etc. If you want to talk about, well, anything - just ping me.

Skills

Programming: (System-)Verilog HDL, SPICE, C/C++, Python, Perl, MATLAB

FPGA/ASIC: Power/Timing/Noise analysis, Formal verification, Verilog-to-Silicon

Web Dev: PHP, JavaScript, HTML5+CSS

Experience

Avicennas Group, Inc.

CTO

May 2015 - Present

Bringing the digital into the healthcare :)

NodeJS/AngularJS/ExpressJS/MySQL - Which one doesn't belong? :)

Managing a team of many?

Being on coffee 80 hours a week!

Boston University

Research Assistant

Sep 2011 - Present

Worked on several projects as part of ICSG group, including

Error avoidance/mitigation in digital circuits

Error-correcting codes in deep-sub-micron technologies

Photonic interconnect architectures in manycore systems

Equalization in chip-to-chip interconnects

Analog Devices, Inc.

Mixed-Signal Verification Engineer

Feb 2014 - Feb 2015

Worked as part of the automotive group

Was responsible for design verification of analog and digital blocks

Worked on 3 projects to develop and deploy UVM and real-number modeling environment

Participated in functional safety discussion (ISO 26262)

Analog Devices, Inc.
Mixed-Signal Design Engineering Intern
May 2013 - Dec 2013

Implemented RNM system for simulation speed up (1000x in average)
Was involved in mixed-signal design flow
Co-developed calibration mechanism for a mixed-signal system

Education

Boston University
Ph.D in Computer Engineering
3.5
Present

Boston University
M.S. in Computer Engineering
3.49
May 2012

Russian-Tajik (Slavic) University
Specialist in Linguistics (German Languages)
4.0
May 2008

Interests

Wildlife: Cats, Unicorns/Pixies/Fairies
Sport: Soccer, Kickboxing, Snowboarding

Volunteering

Small Projects

Energy-efficient pass-transistor-logic using decision feedback equalization
IEEE ISLPED'13
2013-09-04

<http://dx.doi.org/10.1109/ISLPED.2013.6629319>

A multi-layer approach to green computing: Designing energy-efficient digital circuits and manycore architectures
IEEE IGCC'12
2012-06-04

<http://dx.doi.org/10.1109/IGCC.2012.6322276>

Error mitigation in digital logic using a feedback equalization with schmitt trigger (FEST) circuit
IEEE ISQED'12
2012-03-19

<http://dx.doi.org/10.1109/ISQED.2012.6187511>

A preliminary look at error avoidance in digital logic via feedback equalization

IEEE Allerton Conferece

2011-09-28

<http://dx.doi.org/10.1109/Allerton.2011.6120329>

References

Available on request.