# JIN A SONG

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## EDUCATION

2007- Present	North Carolina State University (NC, U.S.A)
	Ph.D. course in Electrical and Computer Engineering
	- Independent study (2008 Fall)
	Analytical approaches for biochemical pathways
	- Qualifying test (2009 Spring)
	Dynamic models of biochemical pathways through information integration
2001- 2003	Ewha women University (Seoul, Korea)
	Master of Science in Electronics Engineering, 2003
	- Thesis: Sampling Offset Estimation in OFDM System in the Case of IF Sub-sampling of Software-Defined Radio
1997- 2001	Ewha women University (Seoul, Korea)
	Bachelor of Science in Electronics Engineering, 2001
	- Thesis: CDMA/TDMA receiver implementation for Software Defined Radio

## PROFESSIONAL EXPERIENCE

**2009- Present** North Carolina State University (NC, U.S.A) (Under the supervision of Dr. Cranos M. Williams)

#### Research Assistant (2009 - )

- Research for dynamic models of biochemical pathways through information integration (2009 Spring)

- Research for parameter and state estimation for biochemical pathways dynamic modeling (2009 Fall)

2008 Samsung Electronics co. Ltd. (Giheung, Korea) (System LSI Division)

> *Intern Engineer (2008 summer)* - Defined and designed algorithm of transceiver of RFID (receiver part)

2003-2006 Magnachip Semiconductor Ltd. (Seoul, Korea) (Formerly SystemIC Division, Hynix Semiconductor, Inc.)

#### Senior Engineer (2005-2006)

- Designed and developed an 8-bit LCD TV driver IC with 0.3/0.35 um processor
- Mentored new engineers in their designs for the Control Signal of an LCD driver IC.

## Engineer (2003-2004)

- Designed and developed an 6, 8-bit LCD monitor driver IC with 0.3/0.35um processor

## PROFESSIONAL EXPERIENCE

**2001-2003** Ewha wemen university (Seoul, Korea) (Mobile Communication Laboratory and Hynix-Ewha Microelectronics Center)

#### Research Assistant (2001-2003)

- Defined the mobile station modem algorithms for 4G wireless systems which facilitate multimode, multi-band cellular phones.

- Researched sampling offset estimations on OFDM systems for Software-Defined Radio.
- Implemented modem algorithms for OFDM transceivers

#### Teaching Assistant (2001-2003)

- Graded experiments and reports.
- Assisted in the lab work for the undergraduate course in the Electronic Circuit Lab.

- Assisted the Instructor of Microprocessor Architecture & Application in both research and teaching.

## **SKILLS**

- Biology Modeling: Vcell, Copasi
- Algorithm Simulation: Matlab / Visual C, C++
- Hardware Design: DSP, FPGA

## **PUBLICATIONS**

 Jin A. Song and Nak Myung, Kim, Sampling Offset Estimation in OFDM System in the Case of IF Subsampling of Software-Defined Radio, The 13<sup>th</sup> Joint Conference on Communications and Information, April 2003

## PRESENTATIONS

• Parameter and state estimation containing uncertainty for biochemical pathways, *Joint ECE-CSC Fall Seminar*, Raleigh, NC, October 24, 2009,