

Heng Tan

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Work Address

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I. Education

A. Degree Programs

- Doctor of Philosophy – Computer Engineering
University of Central Florida – June, 2003 – present
- Master of Science – Computer Engineering
University of Central Florida – May 2003
Emphasis: Computer Architecture
- Bachelor of Science – Electrical Engineering
Dalian University of Technology – July 2000

B. Graduate Course Taken

<u>PREFIX & NUMBER</u>	<u>COURSE TITLE</u>	<u>SEM HRS</u>	<u>SEM/YR (EX. F91)</u>	<u>GRADE</u>
1.	CORE			
EEL 5708	High Performance Computer Architecture	3	F02	A
EEL 5881	Software Engineering - I	3	F02	A
EEL 5874	Expert Systems and Knowledge Engineering	3	Sp03	B+
STA 5205	Experimental Design	3	Sp04	A
CAP 5512	Evolutionary Computation	3	Sp04	A
EEL 5357	CMOS IC Design	3	F02	A
EEL 6883	Software Engineering II	3	Sp03	A
2.	OPTION			
EEL 6707	Parallel Processing	3	Sp03	A
EEL 6908	Independent Study	3	Su03	A
COT5405	Design Analysis Algorithm	3	Su03	B
EEL 5722	FPGA Design	3	F03	A
EEL 6908	Independent Study	3	F03	A-
EEL 6763	Current Topics in Parallel Processing	3	F03	A
EEL 6908	Independent Study	3	Sp04	A
EEL 6908	Independent Study	3	Su04	A-
EEL 5704	CAD Logical Design	3	Su04	A
EEL 7980	Dissertation	9	F04	S

C. Examinations

- GRE Score: 2250 (650 verbal / 800 analytical / 800 quantitative)

I. Working Experience

2004 – present: University of Central Florida – Orlando, Florida

Research Assistant, *Department of Electrical Engineering*

Conducting research in an Autonomous Fault Handling project funded by NASA. The project goals are to analytically model the large-scale reconfigurability of on-chip resources and to iteratively develop adaptive reconfiguration techniques to occlude failures. This novel self-regeneration approach for embedded systems is based on *Competitive Runtime Reconfiguration (CRR)*. Instead of using redundant spares to handle failures, CRR synthesizes fault-specific reconfigurations to regain lost functionality. My major roles in this project include:

- *Development of Field Programmable Gate Array (FPGA) platform*
- *Low-level Communication APIs Development*
- *On-Chip Embedded Operating System Development*
- *GA Chromosome Representation Design*

2002 – 2004: University of Central Florida – Orlando, Florida

Teaching Assistant, *Department of Electrical Engineering*

Responsible for operation of laboratories and review of technical material. Configured equipment and provided guidance to students on conducting experiments. Graded laboratories, homework, and maintained grading sheets.

- *Lab TA and Grader for EEL 4768c: Computer System Design II: 2004 Summer – Fall*
- *Lab Grader for EEL 6883e: Software Engineer II: 2004 Summer*
- *Lab TA and Grader for EEL 3801e: Introduction of Computer Engineering: 2002 Fall – 2004 Spring*
- *Grader for EEL 3342: Introduction of Digital Circuits: 2002 Fall – 2003 Spring*

2001 – 2002: Shenzhen Social Insurance Department, China

Software Engineer

- *Major Designer for subsystem of Insurance for unemployment*
- *Technical support and maintenance for subsystem of Retirement and Medical Insurance*
- *Software was written in RPG and Java programming language and had 9 programmers*

2000 – 2001: Konka Corporation Ltd, China

Software Engineer

- *Developing Embedded Operating System for LCD TV*
- *Developing Embedded Operating System for Digital HDTV set top box*
- *Software was written in C programming language and had 5 programmers*

II. Technical Skills

- *C*
- *C++*
- *Java*
- *VHDL*
- *Verilog*