

Ms. Xiao Jing Chen

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Education

M.S	Industry Engineering	2006-Present
University of Cincinnati, OH USA		
M.S	Industry Engineering	2003- 2005
DongHua University, ShangHai, CHINA		
B.S	Industry Engineering	1999-2003
DongHua University, ShangHai, CHINA		

Research Experience

IMS Center **2006-present**

Research Assistant **Bioinformatics Research Center, DongHua University** **2003~2006**

- 1) Mult-universities project of DNA computer design based on the Microfluidics technology
 - Work in a cross-disciplinary team and interface with researchers from biology, informatics, and physics filed.
 - Host in monthly group conference and yearly project review and present research progress
 - Take ownership of mathematic modeling and informatics system development in project
 - ◆ Design logic computations for assigned function of simple computer program such as Syntax pattern Recognition
 - ◆ Develop a DNA computer prototype by selecting detecting DNA molecules for input and output, and integrating the chemical DNA reactions to represent the logic computations
 - ◆ Explore Mcirosluidics technology in information store stacks at molecular level
 - ◆ Utilize Fourier Oscillation equations to determine the appropriate initiate ratio of reactants to solve the oscillatory phenomena in DNA reaction Bio/ chemical Oscillatory in DNA reaction
 - Work with team member to carry out the DNA reactions for Syntax pattern Recognition
 - Present research work in Tenth International Meeting on DNA Computing

- 2) NSF project of DNA Sequence analysis based on visualized cellular automata
 - Digitalized the DNA information by two digit coding of four DNA base which can reflect the chemical properties of DNA
 - Establish a mathematic model by using Cellular automata concept for recognition of DNA sequence
 - Construct simulating computer program to determine genes that code for proteins and visualize one dimension DNA sequence information in a two Dimension image format
 - Evaluate the mathematic model by using random sample data in-field survey database
 - Published scientific paper of this research works in 2004 IEEE SMC Conference Proceedings

Research Assistant **Industrial automation Laboratory, DongHua University** **2001~2003**

- Office working flow automation system

- ◆ Upgrade the C/S operation system as replacement for current B/S system using java, javascript
- ◆ Applied ANN/artificial neural network optimization mechanism for improved system performance
- Laboratory Design Course on temperature control system and display system
 - ◆ Programmed PID control software code using MCS-51
 - ◆ Assisted in software design for operation panel and display parts and in charge of program Using assembly language
 - ◆ On-hands work in designing and constructing circuit of 4 digits LED display system with EWB, PCB, Protel (Make sure the name is correct)

Publications

- Digital Coding for Amino Acid Based on Cellular Automata, IEEE SMC, Conference Proceedings, 2004
- A Novel/Practicable Model for Bio-Oscillatory in DNA Computer Construction
- Using cellular automata to generate image representation for biological sequences, Amino Acids Vol 28, NO 1 (29 :35) Feb 2005
- An application of gene comparative image for predicting the effect on replication ratio by HBV virus gene missense mutation J Theor Biol. 21;235(4):555-65 Mar 24 2005

Extracurricular Activity

Internship **HR department of Bayer, CHINA** **2004.6~2004.12**

- Manage the database of Human resource
- Assistant in company training and in-filed questionnaire
- Assistant in recruiting program of hiring schedule, resume screening, interview arrangement etc.

Vice president in Department of Social Activity **2003~2005**

- Organized Christmas party with the Yuyuan Tourist Mart, negotiated in funding support, schedule the party performances, host the event rehearsal and prepared for performance menu
- Organizer, choreographer and a dance performer for Graduate Student Welcoming event

Awards and Honors

2003~2004 Comprehensive scholarship and teaching assistantship in DongHua Univeristy
 2003 Honored undergraduate thesis
 2002 Comprehensive Scholarship in Donghua University

Related Major Courses

Modeling and simulation for system	Digital signal processing
● Probability theory and stochastic process	PLC (programmable logic controller) Laboratory
● Microcomputer control system Laboratory	Information and communication Network
● C Programming	Computer composition and Network

References available upon request