

Jingyuan Zhang

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EDUCATION

School of Software, Dalian University of Technology

Dalian, China

Master Candidate in Computer Applied Technology

September 2009–Present

- Advisor: Dr. [He Jiang](#)
- Research Interest: **Heuristic Search and Data Mining**
- Overall GPA: 91.40/100 Major GPA: 91.90/100 Rank: **1/44**
- Relevant Courses: *Data Warehousing and Data Mining / Algorithm Designs and Analyses*
Network Simulation and Performance Evaluation / Information Retrieval

Bachelor Degree in Software Engineering

September 2005–June 2009

- Overall GPA: 90.52/100 Major GPA: 91.47/100 Rank: **1/349**
- Relevant Courses: *C/C++ Language Programming / Data Structures / Artificial Intelligence*
Java Language Programming / J2EE / Compiler Theory / Computer Network
Principle of Database / Operating System Principle / ORACLE Database

RESEARCH EXPERIENCE

Graduate Research Assistant

Advisor: Dr. [He Jiang](#)

September 2010–October 2011

Alternative Stream Clustering

- Issued the new task of alternative clustering in the context of data streams.
- Proposed a new algorithm AltStream to discover two alternative macro-clusterings.
- Developed a new method SOBD (Sum Of Balanced Distance) to approximately compare clusterings.
- Presented two comparative methods, DecStream and AltCluStream, to evaluate AltStream.
- Tested the performance of SOBD with the existing measure for clustering similarity.

Graduate Course Research

Advisor: Dr. [Wenxin Liang](#)

April 2010–June 2010

A Literature Investigation of Uncertain Data Mining

- Investigated the reason of data uncertainty and different types of uncertain data.
- Analyzed existing methods for clustering, classification, frequent item set mining, and outlier detection.
- Illustrated directions for future work (e.g. exploring semi-supervised learning on uncertain data).

Graduate Course Research

Advisor: Dr. [Weifeng Sun](#)

April 2010–June 2010

A Literature Investigation of Ant Colony Clustering for Wireless Sensor Networks

- Studied existing ant colony clustering algorithms and clustering techniques for WSN.
- Analyzed the feasibility of AntClust based clustering algorithm for WSN.

Undergraduate Research Assistant

Advisor: Dr. [He Jiang](#)

March 2009–April 2010

A Hybrid ACO Algorithm for the Next Release Problem

- Proposed an algorithm HACO (Hybrid ACO) to approximately solve NRP, a NP-hard problem.
- Incorporated a local search operator FHC (First Hill Climbing) into HACO for better solution quality.
- Employed an automatic tuning procedure CALIBRA for parameter settings.
- Compared HACO with existing heuristic algorithms including GRASP, FHC and SA.

PUBLICATIONS

He Jiang, **Jingyuan Zhang**, Shichao Qu, “Alternative Stream Clustering,” under review in *SDM Conference*, 2012.

He Jiang, **Jingyuan Zhang**, Jifeng Xuan, Zhilei Ren, Yan Hu, “A Hybrid ACO Algorithm for the Next Release Problem,” in *Proceedings of 2nd International Conference on Software Engineering and Data Mining (SEDM 2010)*, Chengdu, China. June 23-25, 2010, pp. 166-171. [[PDF](#)], [[IEEE](#)]

HONORS AND AWARDS

2010–2011	<i>Outstanding Graduate Award</i> , DUT, 5 out of 44 in School of Software, DUT
2009	<i>Dalian Outstanding Graduate Award</i> , 10 out of 800 in School of Software, DUT
2007–2008	<i>National Scholarship</i> , 10 out of 350 in School of Software, DUT
2007	<i>The First Prize of DUT Mathematical Modeling Contest</i> , DUT
2006	<i>Model Student of Academic Records</i> , 10 out of 2400 in School of Software, DUT
2006	<i>China Petrol Scholarship</i> , 25 in DUT

TEACHING EXPERIENCE

Teaching Assistant, School of Software, Dalian University of Technology

Fall 2011	Discrete Mathematics (Instructor: Yan Hu)
Fall 2010	Computer Organization and Structures (Instructor: Jie Wang)
Fall 2009	Java Language Programming (Instructor: Yan Hu)
Spring 2009	Operating System Principle (Instructor: Yan Hu)
Fall 2008	UML (Instructor: Zheng Wang)

MAJOR COURSE DESIGN PROJECTS

Vehicle Monitor System, 4-member team September 2009–November 2009

- Designed distributed database using Ameoba with MySQL and Implemented in Ajax.
- Used Jdom to parse location information through XML document.
- Wrote technical reports including Software Requirement Specification and architecture outline.
- Presented project throughout development cycle to students and professors.

Encryption/Decryption-based Online Chat Room, 2-member team April 2008–May 2008

- Implemented DEA to ensure network security using Java Socket Programming.

Department-based Mass-mailing System, 3-member team November 2007–December 2007

- Implemented in Java with SQL Server 2005 to manage data information in each department.
- Applied SMTP to send group emails to certain department, with respective name in each mail body.

PROFESSIONAL SKILLS

Programming: C/C++, Java, Basic Matlab, SQL, HTML, \LaTeX

Software: MS Visual Studio, Eclipse, Netbeans, Oracle, SQL Server, Weka