

# Lai Xiaoni

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## Education

- Bachelor of Computing (First Class Honors), National University of Singapore Aug 07 – May 11
- Major: Computer Science
  - Specializations: Databases, Algorithms
  - Cumulative Average Point (CAP): 4.64 / 5.0
  - Dean's List Student (Top 5% in cohort)

## Research Experience

- A Cloud-based SaaS Peer-evaluation Tool, National University of Singapore Aug 10 – May 11  
(Final Year Dissertation)
- Developed a web-based tool which allowed students to evaluate their team mates during school team projects
  - Have undergone two full software engineering development cycles
- Windows Explorer Shell on Google Docs, National University of Singapore Jan 10 – May 10  
(Undergraduate Research Opportunities Program)
- Explored working model of Google Docs and Windows Explorer to deliver a high-fidelity prototype allowing users to manage their Google files in explorer view
- Location-based Entertainment in Healthcare (Training & Simulation Systems), Singapore May 09 – Jul 09  
Technology Electronics
- Worked in the Center of Interactive Media—the R&D department of that division
  - Architected a Virtual Hospital as an experimental implementation
- Exploiting Additional Training Corpora for Chinese Word Segmentation, National University of Singapore Nov 08 – Apr 09  
(Special Programme in Computing)
- Replicated the experiment of building an improved version of Chinese word segmenter
  - Used additional training corpora to successfully reduce the problem of Out-of-Vocabulary words
  - Explored how to eliminate noise in training corpora in order to more effectively increase the accuracy of Chinese word segmentation

## Professional Experience

- Technical Analyst (Back Office IT), Credit Suisse AG Jul 12 – Now
- Key developer role in global control room applications enforcing legal compliance within the corporation, with .NET and Oracle technologies
- Technical Analyst (Front Office IT), Credit Suisse AG Jul 11 – Jul 12
- Involved in intensive development of a global market risk system for trading desk using .NET C#
  - Turned business requirements into stored procedures written in T-SQL on Microsoft SQL Server
  - Enhanced, tuned, migrated databases storing terabytes of market data and trade data

## Teaching Experience

- Undergraduate Discussion Leader, National University of Singapore Aug 10 – May 11
- Taught introductory C programming classes for freshmen in both semesters
  - Attended teaching assistant workshops to sharpen teaching skills in igniting freshmen's passion towards Computer Science

## Publication

[POSTER] Goh, G, **X Lai** and D.C. Rajapakse, "Teammates: A Cloud-Based Peer Evaluation Tool for Student Team Projects". Conference on Software Engineering Education and Training (Waikiki, Hawaii, United States) May 11

## Selected University Projects

<u>CS5226</u>	<u>Database Tuning</u>	A+	Jan 11 – May 11
<ul style="list-style-type: none"> <li>Developed a web-based database performance dashboard with key metrics for DBAs to intuitively determine the health of Oracle database</li> </ul>			
<u>CS4221</u>	<u>Database Design</u>	A	Aug 10 – Dec 10
<ul style="list-style-type: none"> <li>Implemented an ontology approach to resolve discrepancies in integrating multiple Entity-Relationship schemas, by transforming metadata into entities whilst retaining the information of original schemas</li> <li>Studied the concepts and proposed methodologies in published research paper and turned the idea of a schematic discrepancy remover into real deliverable using Python</li> </ul>			
<u>CS3223</u>	<u>Database Systems Implementation</u>	A	Jan 10 – May 10
Replacement Policies in Buffer Manager			
<ul style="list-style-type: none"> <li>Implemented the Least Recently Used (LRU) policy in the buffer manager component of PostgreSQL to supplant the original CLOCK replacement policy</li> </ul>			
External Sorting			
<ul style="list-style-type: none"> <li>Implemented a count-based sorting algorithm to sort the heap tuples, replacing the original external merge sort in PostgreSQL</li> </ul>			
<u>CS3243</u>	<u>Foundations of Artificial Intelligence</u>	A-	Jan 09 – May 09
Robot Navigation in a Maze			
<ul style="list-style-type: none"> <li>Design a maze-solving algorithm and implemented it in a LEGO RCX robot</li> <li>The robot successfully walked through the maze randomly posed by tester</li> </ul>			
Text Categorization using Two Approaches			
<ul style="list-style-type: none"> <li>Implemented the kNN classification algorithm to categorize documents</li> <li>Adopted the Decision Tree classification method; design and implemented a feature selection algorithm to categorize documents</li> </ul>			
<u>CS3215</u>	<u>Software Engineering Project</u>	A	Jan 09 – May 09
<ul style="list-style-type: none"> <li>Worked with other five students on improving an existing static debugging tool for a fictitious programming language, to deliver a better version compared to the original one</li> </ul>			

## IT Certifications

Oracle Database, SQL Certified Expert

Microsoft Certified Technology Specialist: Microsoft .NET Framework 4, Web Applications Development

Oracle Certified Professional, Java SE 6 Programmer

## Involvement

National Undergraduate Research Opportunities Programme Congress 2011, National University of Singapore (Research & Development) Mar 11

Enhanced Learning in Infocomm Technology (ELITE) Industrial Program, Infocomm Development Authority of Singapore (IDA) Aug 08 – May 11

## Overseas Immersion

Student Exchange Programme, University of Illinois at Urbana-Champaign Aug 09 – Dec 09

- Met new friends and experienced the life in a typically dynamic US campus