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CAREER OBJECTIVE

Looking for an internship or full-time research/developer position ideally at Microsoft Redmond or USA based location joining the world class development team to work with the next generation Microsoft technologies.

SKILLS & QUALIFICATIONS HIGHLIGHTS

- C++/C, Object Oriented, Windows Programming (Win32/MFC), DirectX/GDI/GDI+, C#, .Net Framework, SQL Server 2000, Visual Studio .NET

EDUCATION

PHD Candidature, July 2003 - current

University of Technology Sydney, NSW

- Undertaking a research on developing XML association mining algorithm
- Accepted paper: X3-Miner algorithm at Data Mining 2005, Greece
- Developing a self organizing map based association mining algorithm
- Submitted a Model Guided Tree Candidate Generation

Bachelor of Computer System Engineering (Hons), 2002

La Trobe University, Bundoora, VIC – GPA ~3.9/4.0

- Majored in Software Engineering/Computer Graphics/Games Technology
- Obtained High Distinction (95) in final-year Honours thesis project, entitled: "Multilayer Perceptron as the basis for Gaming Motion Generation"

AWARDS and ACHIEVEMENTS

- Holder of 2003 Australian Computer Society (ACS) Student Award
- Nominated the most outstanding Honours Student in Computer Science at La Trobe University (2003)
- Nominated the best 3rd year student in Computer System Engineering at La Trobe University (2002)
- Listed in 2001, 2002, 2003 Dean's Honours List at Faculty of Science, Technology and Engineering
- The Holder of 2001 Golden Key Honours Society Award

PROJECTS & WORK EXPERIENCE SUMMARY <Please see details in page 5>

C#/.NET Programmer – TNT Pocket Delivery Assistance
Contracted to TNT Logistics. Pty. Ltd. 2005 • details

C#/.NET Analyst Programmer – Trading Buddy
Contracted to Trading Buddy Sydney 2004-2005 • details

Product Developer - GPS Project
Smart Car Technologies Pty. Ltd. 2004-2005 • details

Casual Lecture/Tutor
UTS & La Trobe University • 2001/2002/2003/2004/2005 • details

Honours Project: "Multilayer Perceptron as the Basis for Gaming Motion Generation"
La Trobe University • 2002 • details

Research Assistant (VC++/ DirectX Windows Programmer)
Dr. John R. Rankin • La Trobe University • Bundoora • 2002 • details

Summer Research Scholars (C++/Win32/DirectX/COM/MFC Programmer)
La Trobe University • Bundoora • 2001/2002 • details

Part-time C/C++ Programmer (UNIX/VC++)
Vision IT • Bundoora • 2001 • details

The Software Engineering Project: "Online Project Management System"
La Trobe University • 2001 • details

Industrial Placement Software Developer and Support Officer
Nusajaya Systemindo Cipta Pty. Ltd. • Jakarta • 2001 • details

PUBLICATION

- Tan, H., Dillon, T. S., Feng, L., Chang, E., Hadzic, F., *X3-Miner: mining patterns from XML Database*. In Data Mining '05. 2005. Skiathos, Greece.
- Tan, H., Dillon, T. S., Feng, L., Chang, E., *Tree Model Guided Candidate Generation Approach for XML Data Mining*. In Premi 2005, India.
- Tan, H. CStatic derivative CSpeedoMeter class. Rating: 3.67 out of 5. http://www.codeproject.com/useritems/SpeedoMeter.asp.

MEMBERSHIPS

- Member and Vice Chair of UTS Student Chapter, IEEE (2004 – 2005)
- Associate Member, Australian Computer Society (2003 – 2004)
- Member, Golden Key Honours Society (2001)

EXTRACURRICULAR ACTIVITIES

- Participate in the ATN-LEAP (Australian Technology Network – Learning Employment Aptitude Program) modules: **Leadership & Communication** and **Entrepreneurship**. I learnt how to be a great communicator and a visionary leader as well as how to hunt opportunities as an ***entrepreneur*** through these modules.
- IE2004 Committee, helping Dr. Yusuf Pisan with 8 others volunteers chairing IE2004 workshop on 13 Feb 2004 at UTS Ultimo.
- Volunteering in La Trobe Open Days 2001 & 2002 as a demonstrator in Computer Graphics Labs and Games Technology section.
- Social and special events church coordinator 2002

HOBBIES AND INTERESTS

- Programming, Console & PC Game, Classical and Jazz Music, Philosophy, Soccer

PROFESSIONAL REFEREES

Will be advised upon request

Academic Transcript – Bachelor of Computer System Engineering

2002 FULLTIME (Honours Year)

Description	Mark	Grade
Thesis	95%	A
Performance Analysis of Comp System	94%	A
Software Eng, Project Mgnt Estimation	89%	A
Advanced Graphics	89%	A
Eng Innovation & Business Strategy	89%	A
Data Mining	86%	A
Games Technology	84%	A
LANS and WANS	71%	B

2001 FULL TIME

Description	Mark	Grade
In/Out Device Interfacing	98%	A
Applied Probability for Comp Sys Eng	98%	A
Database Systems	92%	A
Graphics Programming	91%	A
Software Engineering Project	88%	A
Computer Architecture	85%	A
Protocol Performance / Routing	85%	A
Software Security & Reliability/Testing	83%	A
Multimedia Systems	80%	A
Marketing for Engineer	77%	B

2000 FULL TIME

Description	Mark	Grade
Linear Algebra for Engineer	99%	A
Microprocessor and Assembly Lg	97%	A
Artificial Intelligence	96%	A
Maths Topics for Computer Science	96%	A
Discrete Maths / Comp Organization	93%	A
Digital Circuits	93%	A
Object Oriented Data Engineering	92%	A
Algorithm Data Structure and Compilers	91%	A
Data Communication Networks	91%	A
Digital Systems	88%	A
Engineering Management	82%	A
System Description Technique	77%	B

PROJECTS & WORK EXPERIENCE DETAILS

C#/.NET Programmer – TNT Pocket Delivery Assistance
Contracted to TNT Logistics. Pty. Ltd. 2005 • back to summary

Contracted to write a thin client application for Pocket PC platform using .NET compact framework. One of the core components of the project was interfacing some of the webservices to the Pocket PC for real-time processing and passing the information back to the main server through webservices/GPRS connection. Working with the TNT's 4GLs developer when developing the webservices.

C#/.NET Analyst Programmer – Trading Buddy
Contract Programmer 2004-2005 • back to summary

I am contracted to a real commercial project with tight deadline. The project requirement was to develop a portfolio management application with general and specific requirements and developed in C#/.NET Framework. More than 6+ experience in programming excelled me with completing the project on time with the agreed budget. The most control I was working on is data grid. As the client require specific requirement, the grid control has to be customized to suit the requirement. My involvement in codeproject community helped me to tailor the customized grid control so that it meets the client requirement. As the application will be distributed through CD we choose to store the data in XML format with encryption enabled.

Product Developer - GPS Project
Contract Programmer • Smart Car Technologies, Pty. Ltd. • 2004-2005 back to summary
I was working in a team of 3 people developing a GPS data capture unit. The language used is C++. The objective of the project is to develop software running in Microsoft Windows platform that acquire, and process data from GPS unit. We managed to complete the prototype in 2 weeks time and completed the whole project in 3 months time. I had no initial background on serial communication and GPS unit; however my drive, determination supported with high class problem-solving and analytical skills had successfully impressed the company director. The final products consist of a thin client application, data capture application, and data management module. My experience with Visual Studio/.NET Framework has excelled me with completing the project with lots of impression.

Casual Lecture/Tutor
UTS & La Trobe University • 2001/2002/2003/2004/2005 • back to summary

I am very passionate on programming and computer graphics. One way to upgrade my knowledge and skill in these areas is through teaching in university as tutor/casual lecturer. Subjects that I have taught include Computer Graphics, .NET Framework, C Programming, C++ Programming, Data Mining, Database

Fundamental, Software Development Project

Honours Thesis: "Multilayer Perceptron as the basis for Gaming Motion Generation"
La Trobe University 2002 • back to summary

I completed my honours thesis in one year under supervision of Dr. John Rankin with Prof. Tharam S. Dillon as my co-supervisor. In this thesis, I proposed a Neural Network based Physics Engine in replacement of commonly known unstable Physics Engine due to numerical integration error that is built up through the simulation which can end up with simulation blow up. The proposed system works tremendously well with a better performance and accuracy. It improves the stability over the conventional physics engine. As the result, the C++/MFC/OpenGL simulator was developed. The simulator developed works in conjunction to the specification proposed in the thesis.

Technologies: Physically Based Modeling, Artificial Neural Network, C++, MFC, OpenGL, Object Oriented, UML.
Achievements:

- Nominated as the best thesis with the highest grade, 95, for honours thesis project 2002
- Has been reviewed by 3 examiners. Normally, if the grade is under 85 it needs only 2 reviewers. However, the final grade was unchanged due to high quality thesis.

Research Assistant (C++ Windows Programmer)
Dr. John R. Rankin • La Trobe University • Bundoora • 2002 • back to summary

I worked with a team of 3 people working on a project (1 year) to create an EPOC (Electronic Proof of Concept) of a 3D car game with accurate physics on a rough terrain.
I was proposing myself as the lead programmer for the project. As the lead programmer on that project my main activities include coding and testing (Unit/Integration testing) for each modules.

Technologies: C, C++, OO, UML, 3DMax, OpenGL, Win32, Unix GLUT, VisualStudio 6, Physics
Achievements:

- More robust and stable modified and enhanced 3D OpenGL Engine from Nehe framework
- Received positive feedback from a demonstration to game companies (Tantalus and Blue Tongue) on physics modeling and deformation design

Part-time C/C++ Programmer (UNIX/VC++)
Vision IT • Bundoora • 2001 • back to summary

The objective of this project was to upgrade and convert an existing multimedia retrieval system source code written in C into a C++ version that work in both Windows and Unix environment. I was mainly dealt with transforming one color space to other color space: RGB, YUV, HSV, HVC, CIELab, and Discrete Cosine Transform. On the other hand, the existing code was written by another student and has been reported to have some bugs that need to be rectified. The project was last for about 8 months and done individually.

Technologies: C, C++, Object Oriented, UML, Windows, Unix, Visual Studio 6, GCC
Achievements:

- A working and robust code that is able to meet the initial objective, i.e. to match various images from image database. The system worked remarkably well in matching one particular image against the database and returning the exact image found in the database with 100% confidence level.

Summer Research Scholars (C++/Win32/DirectX/COM/MFC Programmer)
La Trobe University • Bundoora • 2001/2002 • back to summary

The research was on finding a better way of formulating generic CSprite and CObjectManager classes for a 2D arcade game development framework. Toward the end of the project, a demo game was developed to demonstrate the finding. I created game arts creation for the demo.

Technologies: C++, MFC, Win32, Object Oriented, UML, Visual Studio 6, 3D Max, Photoshop
Achievements:

- Obtained a “Game Arts Award” in La Trobe Game Industry Night 2002

The Best Software Engineering Project: "Online Project Management System" (2001)
La Trobe University • Bundoora • 2001 • back to summary

This project was completed in team of 7 people. This project was to develop an online Project Management System. It was developed in PHP, Javascript, MySQL, HTML, XML & CSS. The project required each team to develop the software in full SDLC from gathering its requirement (specification), design, coding, testing and documentation till delivering the final product and presenting it to the industrial people. I was mainly responsible for the database design and developing File I/O library in PHP for documents repository module.

Technologies: PHP, MySQL, ADO, SQL Language, CSS, XML, HTML, Javascript, Adobe Photoshop

Achievements:

- Nominated as the best team with best system
- Completing the whole system before its due time so that our final product was delivered with error free, robust, stable, and pass all the test cases.

Industrial Placement Software Developer and Support Officer
Nusajaya Systemindo Cipta Pty. Ltd. • Jakarta • 2001 • back to summary

During this 3 months summer holidays period I was working in an oil and gas company in Jakarta. I was working on a small scope team project to setup a print server, mail server, and LAN for the head office and develop a database application to store, retrieve and report the company's inventory [machinery, pipes, & spare parts].

Technologies: C++, Visual Studio 6, MFC, DAO, ADO, Windows 2K Server, LAN
Achievement*:*

- The LAN was setup on time and makes the internal communication through email between people within the head office possible. In addition, I helped the company cut their unnecessary expenditure by setting up the printer server so that the company can use a centralized printer in one place. While previously, the printers are setup all over different places, which means money wise speaking it, is so inefficient. The contribution in helping the company cut their unnecessary cost was acknowledged enthusiastically by the senior manager.
- The inventory system completed on time. The training was provided for staff to use the system. The company could then manage their inventory system in more effective and efficient manner than it is done previously.