Michael Tsang

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Education

University of Toronto   Sept 2000 – Nov 2002
    (Master's in Computer Science, focus: Human-Computer Interaction)

University of British Columbia   Sept 1995 – July 2000
    (Bachelor's: Honours Computer Science, Commerce Minor, Co-op)

Related Courses

Artificial Intelligence
Advanced Algo Design & Analysis
Advanced Software Engineering
Constraint Satisfaction
Distributed Systems
Database Systems
Graph Theory
Graphics
Intelligent Systems
Human Computer Interaction

Human Interface Technologies
Machine Learning
**Managing the Software
        Development Cycle**
Numerical Analysis
Operating Systems
Requirements Engineering
Simulation and Modeling
Technical and Business Writing
Theory of Computation

Other: Strategic Management, Marketing,
    Financial and Managerial Accounting, Health Psychology

Programming Experience

- Basic
- C/C++ (VC++)
- Cilog (prolog)
- HyperCard
- Java, Java3D **

- Javascript
- Matlab **
- OpenGL
- Perl **
- PHP **

- PL/I
- SQL **
- Scheme
- Turbo Pascal
- Visual Basic **

(**) indicates more recent projects

Certifications

- Music – Royal Conservatory of Music Piano 9, History 4, Harmony 4
- Martial Arts – Judo, 1st degree Black belt
- Coaching – 3M National Coaching Certification Program (NCCP):
        Level 1 Certified Coach (Judo)
        Level 1 Theory, Level 1 Technical (Artistic Gymnastics)
- Aquatics – Royal Life Saving Society of Canada:
        National Lifeguard Service Award, CPR level 'C',
    Senior Resuscitation, Red Cross 'Aqualeader'

Awards and Scholarships

2002   University of Toronto Fellowship
2001   Ontario Graduate Scholarship
2000   University of Toronto Fellowship
1999   NSERC Undergraduate Student Research Award
         (award tenured at UBC Commerce)
1998   Invitation – 'Golden Key' National Honor Society (declined)
1996   Rotary Youth Leadership Award, District 5050
1995   University of BC Outstanding Student Initiative Scholarship
1995   BC Government Scholarship, Rotary Scholarship
1995   Euclid Math Contest Award

Work / Research experience

2001/09 – 2002/09 **Research Group, Alias|Wavefront (Toronto, Ontario)**
Desiged and implemented a novel system to simultaneously capture voice, gesture and viewpoint information for three dimensional models. Research done in conjunction with research team at Alias|Wavefront, which resulted in a published paper. (*Boom Chameleon: Simultaneous capture of viewpoint, voice and gesture annotations on a spatially aware display*. UIST 2002. Paris, France)

2000/05 – 2000/08 **E-Commerce Research Group,**
University of British Columbia (Vancouver, B.C.)
Chief Software Architect, Design and prototype implementation of reference, link, file and search engine system using PHP, MySQL and Apache. Design, implementation of research web site for PhD. And MSc. projects implemented using dHTML, Javascript, Java Server Pages (Jakarta-tomcat), Quicktime, and Shockwave with a framework using the Model-View-Controller design pattern.

1999/05 - 1999/08 **National Research Council – (London, Ontario)**
Integrated Manufacturing Technologies Institute,
Intelligent Production Systems and Visualization group
Desiged and implemented a Virtual Robotic Arm which repositions joints to avoid obstacles in real-time with no a priori knowledge of the environment (C/C++, DenebEnvision/Axxess package). Also prototyped virtual model navigation interfaces for use in an immersive environment using Acension Flock of Birds. Gave informal seminars on coding style and Software Engineering.

1998/01 – 1998/08 **Ensemble-Systems Inc. (Richmond, B.C.)**
Modified architecture modeling software converters (Rational Rose, Paradigm Plus, Cayenne ObjectTeam) to and from CDIF format for large commercial clients. Created and Integrated various other programs (VC++, VB, OLE/COM) with MS Office applications.

1997/06 – 1997/09 **Abbotsford Judo Club (Abbotsford, B.C.)**
Created "Tournament Manager" program to organize and run a large competition (VB front-end, MSAccess back-end w/ SQL). Also designed and implemented web pages.

1996/01 – 1996/09 **BC Ministry of Human Resources (Vancouver, B.C.)**
Modification, testing and documentation of a large mission critical system, (PL/I, SQL) specializing in electronic forms. Documentation and testing of an MSAccess database application.

Leadership Activities:

- Vice-President, University of Toronto Judo Club, 2002/06 - present
- Financial Officer, Graduate House Council, 2003/01 - present
- Social Representative, Graduate House Council, 2002/04 – 2003/01
- Vancouver Board of Trade "Leaders of tomorrow" – 2000
- University of British Columbia Dean of Science Ambassador - 2000
- Rotary Youth Leadership Award, District 5050 – 1995

Activities and Interests

Current research interests include technologies for distributed organization of groups, social identity and group awareness, machine learning applications, ambient and ubiquitous information ideas, and the application of software engineering techniques to model business processes. In the past, I was a member of the BC Youth Business and Entrepreneurship Training Program, and part of the Vancouver Board of Trade's "Leaders of Tomorrow" Post Secondary Student Initiative. I have also had the opportunity to represent BC in the 1994, 1995 and 1996 National Judo Championships. In my spare time, I like to read, play piano, do brain teasers and perform magic tricks. But not all at the same time.

References available upon request