

# André Tzu Hui Pang

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## EDUCATION

### **Bachelor of Science in Computer Science & Psychology**

University of New South Wales, Sydney, Australia.

Graduated July, 2003.

Undergraduate Honours thesis: “[Binding Haskell to Object-Oriented Component Systems via Reflection](#)”

## CITIZENSHIP

Australian citizenship

## RESEARCH INTERESTS

Programming languages (functional, object-oriented, and otherwise), software engineering practices, markup languages, human-computer interaction, multimedia

## SKILLS

### ◇ **Programming Languages and Development Platforms**

- Expert: C, [Haskell](#), Java, [MPD](#), Objective-C/Cocoa, Perl, sh/bash/zsh, Tcl/Tk; Linux/UNIX, Mac OS X, Mozilla (XUL/CSS/XPCOM/Javascript), Erlang
- Experienced: 68k assembler, C++, HTML,  $\LaTeX$ , Python, SQL, XML, Javascript; IRIX, MacOS Classic, OS/2, Solaris, Windows 3.11 to XP

### ◇ **Languages:** Fluent English

## WORK EXPERIENCE

### ◇ **Software Engineer;** Realmac Software (May 2006 to now)

- Contract developer on [RapidWeaver](#), an award-winning Website creation tool.
- Setup and administration of [Subversion](#) and [Trac](#) development tools.

### ◇ **Software Engineer and Systems Administrator;** Rising Sun Research (Aug 2005 to March 2007)

- Lead developer and development manager for [cineSync](#), a program for synchronised network playback and collaborative annotation of multimedia files.
- Systems administrator for the computing infrastructure used by Rising Sun Research staff, such as [Subversion](#), [Trac](#), network file shares (NFS/SMB), Apache httpd, ftp, the [vTiger CRM](#), [GNU mailman](#) mailing lists, etc.

### ◇ **Software Engineer;** Information and Communications Technologies, CSIRO (Oct 2002 to Jul 2005)

- Design and implementation of the Continuous Media Web (CMWeb) project, including specifications, standards and software for [Annodex Media](#).
- De-facto administrator for development support and web tools, such as maintaining Apache httpd, CVS and [Subversion](#), [Trac](#) and [Mailman](#).

### ◇ **Set assignments** for students in Higher Computing 1A (COMP1711) at UNSW in Session 1, 2001, and Computing 1A (COMP1011) in Session 2, 2001 and Session 1, 2002. This includes

- Answering all assignment-related email on a daily basis, and
- Implementing assignment specifications in association with the lecturer-in-charge

### ◇ **Tutor at the University of New South Wales** in Computing 1A (COMP1011), and Software Construction (COMP2041). This includes marking student’s assignments. Tutored since Session 1, 1999 until Session 1, 2003.

- ◇ **Software Engineer (Vacation Student)**; Analytic Audio Systems group, Computing and Mathematical Information Sciences division, CSIRO (Oct 2001 to March 2002)
  - Wrote an MPEG and generic audio file parser to split/join those media file formats
  - Helped design the Continuous Media Markup Language (CMML) and Annodex Media file format
  - Presented a talk on the CMWeb at the CSIRO ‘Big Day Out’ in Canberra, titled “Splicing the Web”
- ◇ **IT Support**; Purruna Pty. Ltd. (July 1999 to March 2000)
  - On-site and phone support for clients, including hands-on training in desktop office programs (e.g. Microsoft Excel, Outlook)
  - Rollout, configuration & maintenance of networking infrastructure at small businesses with Windows, Linux, IRIX and MacOS Classic
  - Specified business proposals and network design for new clients

SELECTED  
SOFTWARE  
PROJECTS

- ◇ **Primary author of HOC** (a Haskell to Objective-C binding), **Vimacs** (Emacs emulation mode for the Vim text editor), and the core **Annodex tools and libraries**.
- ◇ **Added Annodex support to VLC and xine**, popular open-source media players.
- ◇ **Significant contributions to illiminable’s Ogg DirectShow filters**, including Mac OS X and UNIX ports of the command-line tools, many bugfixes, influence on its architecture and design, and implemented the *mod\_oggchef* Apache httpd server module that dynamically recomposes Annodex media files.
- ◇ **Helped with the Mac OS X port of xine**, an open-source multimedia player similar to VLC. Wrote Cocoxine (Cocoa wrappers for libxine) and Maxine, a proof-of-concept Mac OS X xine front-end.
- ◇ **Contributed patches to the Linux kernel** to fix screen corruption problems on selected VIA chipsets
- ◇ Implemented **dynamic module loading for the Glasgow Haskell Compiler**
- ◇ **Previous maintainer of bzip2 for MS-DOS**

ACHIEVEMENTS

- ◇ **COMPSOC Social Officer** and **CSE Student Representative** in 1999.
- ◇ **Member of the Sydney Linux Users’ Group** (SLUG): presented about **zsh**, Annodex, and **programming languages** at several meetings.
- ◇ **Previous columnist for linuxtoday.com.au**; wrote two articles: “Linux Package Management Needs a Wakeup Call” and “Linux has already won”
- ◇ **Hold a Certificate III in Audio Engineering** from JMC Music Academy, 1996
- ◇ **Placed 2<sup>nd</sup> in the Assembly 97 music competition** with my song “Bliss”. (**Assembly** is Finland’s largest annual international convention, and is dedicated to the computer demoscene)
- ◇ **Wrote a music track for Powerslide**, a critically acclaimed computer racing game published by Ratbag Games and GT Interactive
- ◇ **Member of the Kosmic Free Music Foundation from 1996–1997**.
- ◇ **Linux.conf.au 2001 helper**
- ◇ **Linux.conf.au 2007** and **Linux.conf.au 2008** paper review committee member.
- ◇ **I have spoken at conferences and presented at universities many times** on a number of different topics; see <http://www.algorithm.com.au/resume> for a history of talks that I’ve done.

HOBBIES,  
INTERESTS

- ◇ **Musician and DJ**; have produced seven of my own compilation CDs including an album, and written many of my own songs for personal satisfaction
- ◇ **Dungeons & Dragons** and RPG gamer
- ◇ **Computer gaming** interests include RPG, strategy and some FPS games
- ◇ **Sport interests** include tennis, basketball, rockclimbing, snooker and karate

SELECTED  
PAPERS

- ◇ A. Pang, “[Binding Haskell to Object-Oriented Component Systems](#)”. Undergraduate Honours thesis, University of New South Wales, Sydney, Australia, 2003. Received first-class honours.
- ◇ S. Pfeiffer, C. Parker, A. Pang, “Continuous Media Web: Hyperlinking, Search & Retrieval of Time-Continuous Data on the Web”, in “[Managing Multimedia Semantics](#)”, U. Srinivasan & S. Nepal (eds), in press (25 pages).
- ◇ A. Pang, C. Parker, S. Pfeiffer, “[Challenges of Networked Media: Integrating the Navigational Features of Browsing Histories and Media Playlists into a Media Browser](#)”. Submitted and accepted for the ACM Multimedia Conference 2004.
- ◇ C. Parker, S. Pfeiffer, A. Pang, “[Demonstrating a Video and Audio Web](#)”. Submitted and accepted for ACM Multimedia Conference 2004.
- ◇ A. Pang, M. Chakravarty, “[Interfacing Haskell to Object-Oriented Languages](#)”. Submitted and accepted for the Implementation of Functional Languages 2003.
- ◇ A. Pang, D. Stewart, S. Seefried, M. Chakravarty, “[Plugging Haskell In](#)”. Submitted and accepted for the Haskell Workshop 2004.

REFERENCES

- ◇ **[Dr. Manuel Chakravarty](#)**  
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This curriculum vitae is available on the world wide web at <http://www.algorithm.com.au/resume>. The online version contains full hyperlinks.