André Tzu Hui Pang

P. O. Box 494
Roseville, NSW 2069
Australia
ozone@algorithm.com.au
http://www.algorithm.com.au/
Phone: +61-411-882299

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 Adminstrator**; 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 Cocoaxine (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 2nd 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**
  Senior Lecturer
  School of Computer Science & Engineering
  The University of New South Wales, Kensington NSW 2052 Australia
  Telephone: +61 2 9385 4495 (Sydney, +10/+11 GMT)
  Email: `mailto:chak@cse.unsw.edu.au`
- **Dr. Silvia Pfeiffer**
  Chief Technical Officer and Co-Founder
  Vquence Pty Ltd
  18 Bulletin Place, Sydney NSW 2000
  Telephone: +61 401 384 041 (Sydney, +10/+11 GMT)
  Email: `mailto:silviapfeiffer1@gmail.com`
- **Alan Rogers**
  cineSync Product Manager
  Rising Sun Research
  Suite 15/16 Charles St, Redfern NSW 2016
  Telephone: +61 2 9338 6478 (Sydney, +10/+11 GMT)
  Email: `mailto:alan.rogers@risingsunresearch.com`
- **Daniel Counsell**
  Director and Founder
  Realmac Software Ltd
  6 Gloucester Yard, 121-123 Gloucester Road, Brighton BN1 4AF, United Kingdom
  Telephone: +44 1273 622990 (London, +0/+1 GMT)
  Email: `mailto:dan.counsell@realmacsoftware.com`

This cirriculum vitae is available on the world wide web at `http://www.algorithm.com.au/resume`. The online version contains full hyperlinks.