Peter Colijn

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Skills

- ◇ C, C++ and Java programming
- ◇ GUI design in GTK+, Swing, HTML/JavaScript
- ◇ x86, MIPS, SPARC assembly
- ◇ Linux/UNIX operation and maintenance
- ◇ Scripting (perl, python, ruby, bash, awk, sed, etc.)
- ◇ Networking (DHCP, SMTP, IMAP, LDAP and other protocols)
- ◇ Personal interaction, teamwork skills

Education

- ◇ **University of Waterloo**, Waterloo, ON.
  - · Bachelor of Mathematics in Computer Science, April 2006.
  - · Recent courses:
    - – Computer Graphics
    - – Real-time Computing
    - – Compilers
    - – User Interface Design
- ◇ **Awards**
  - · Dean's list for outstanding academic acheivement in the School of Computer Science at the University of Waterloo. (Aug 2003 to present)
  - · Awarded "best project" for a Java Solitaire game written with one teammate. The game was graphical, animated and had a "take best move" feature that could play an entire game. (Dec 2001)
  - · Alexander Rutherford graduation scholarship for academic acheivement and leadership from Western Canada High School. (June 2001)
  - · René Descartes entrance scholarship to the University of Waterloo. Only 125 of these awards are given each year. (May 2001 to present)
  - · Placed in the top 25% in the 2001 American Mathematics Competition.
  - · Placed in the top 25% in the 2000 Canadian Open Mathematics Competition.

Interests and Activities

- ◇ **Robotics**: raised over $1,100 for Western Canada High School's robotics team, developed the team's web page and participated in robot construction.
- ◇ **Piano**: completed grade 8 Royal Conservatory piano.
- ◇ **Cycling**: cycled 1200km between January and April 2003, despite the Canadian winter; an avid cycle commuter.
- ◇ **French**: completed higher-level International Baccalaureate French, enough for fluent conversation.

PROJECTS

◇ **MusIQ**, a music player application with advanced real-time 3D visualisation.
- · Developed signal analysis techniques for synthesising object-based images based on audio signals.
- · Implemented shadows, reflection and spline animation in OpenGL.
- · Used a threaded design to allow interactive searches of the music database while maintaining fast response times to events in the audio signal.

◇ **PortOS**, a real-time microkernel operating system, written with one teammate.
- · Implemented kernel architecture for handling interrupts, IPC and performance monitoring.
- · Developed a userspace VESA graphics driver and virtual terminal architecture.

WORK EXPERIENCE

◇ **Software Engineer**, *Google, Inc.*, Mountain View CA (June 2006 to present)
- · Implemented custom search indexing and retrieval schemes
- · Lead architect and implementor of large-scale distributed applications
- · Designed and was responsible for many new features in Google Calendar

◇ **Software Engineer**, *Google, Inc.*, Mountain View CA (Winter, Fall 2005)
- · Produced a SyncML client in Java that was over 10 times faster than the previous synchronisation strategy, scaled to 10,000 users per machine.
- · Contributed to specifications for GData data aggregation standards.
- · Implemented and was responsible for 4 major features of Google Calendar (multiple calendars, calendar sharing, system distribution, event overrides)

◇ **Human Cannonball**, *Net Integration*, Montréal QC (Fall 2003, Summer 2004)
- · Worked with a number of open-source projects, including GNOME, Evolution and Netatalk, quickly and effectively making contributions.
- · Developed a C++ plugin for Evolution to communicate with ExchangeIt, Net Integration's Microsoft Exchange replacement technology.
- · Developed a C++ MAPI library to generate TNEF streams and convert between MAPI calendar and contact items and the iCalendar and VCard formats, respectively.
- · Added several features to Evolution, such as support for automatic creation of contacts.
- · Developed an NSS provider for UniConf, a next-generation configuration storage system.
- · Designed and implemented an autobuilder for Expression, Net Integration's diskless slim-client desktop, in Perl.

◇ **Evil Death Ray**, *Net Integration*, Toronto ON (Winter 2003)
- · Designed and ran tests for all features of Nitix, based on feature specifications.
- · Designed and implemented an automated test suite for Nitix in Perl.
- · Oversaw the team responsible for testing each software release (3 people).
- · Worked with software developers to provide useful information for reproducing bugs (eg. stack traces, logs, etc.)

◇ **System Administrator**, *DecisionSoft*, Oxford UK (Summer 2002)
- · Deployed OpenLDAP contact server and wrote an intranet GUI in CGI/Perl.
- · Maintained 25 Linux desktops and 8 Linux servers (RedHat).
- · Ensured system security by using watchdog cron jobs, applying patches and routinely checking users' passwords for weaknesses.
- · Developed interpersonal skills by helping others.

REFERENCES

Available upon request.