

Michael Smith

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Nationalities: Australian, British. Permission to work in USA: E-3 visa

Summary:

My interests are wide-ranging, but centre around multimedia software and high performance systems architecture. I am strongly motivated by challenging problems, and by consistently delivering high quality production code to users. I am currently looking for a software engineering position in the multimedia software field, ideally in embedded/mobile.

Skills summary:

Multimedia frameworks (GStreamer)

Network protocols

Distributed systems

High performance servers

Multimedia codecs

Languages: C, C++, Python, Java, Javascript, others

Work Experience:

April 2008 – Now: Pioneers of the Inevitable (Songbird)

At POTI, I led the conversion of Songbird to use GStreamer across all supported platforms (Linux, Windows, Mac), including development of platform-specific audio and video sinks for GStreamer, and use of platform-specific system codecs (DirectShow, QuickTime) to make GStreamer a viable solution across non-Linux systems.

Development responsibilities included the playback and transcoding subsystems, maintaining our GStreamer integration, integrating third-party codec implementations into Songbird, as well as UI implementation and general development work on the product (primarily in C++, with some javascript).

July 2005 – March 2008: Fluendo, S.L.

My responsibilities centre on a flexible, scalable streaming media server (Flumotion), written mostly in Python. This involves work on the core streaming technology, designing and developing a high-availability clustered version of the server, and writing cluster management software.

I also have significant responsibilities developing parts of the GStreamer multimedia framework, and many of the plugins provided with it. I developed a number of proprietary codec plugins (MPEG4, AC3, and work

on several others). I have run several training courses on GStreamer plugin and application development for some of our clients (including developing some of the training material).

December 2000 - March 2005: SpeedLegal

At SpeedLegal (now Exari), I worked on a large Java web application for XML document processing and management. I was initially part time (to end of 2002), developing XML processing systems and working on WebDAV-accessible storage backends.

I later joined SpeedLegal full time, and led the design and development of a major new version. This involved extensive XML architecture knowledge, and design for scaling a very large and compute-intensive web application. It also required implementation of network protocols (HTTP, WebDAV, DeltaV, SOAP), and API design for third-party integration.

December 1999 - February 2000: Melbourne IT

Developed mobile services prototypes using WAP. Included work integrating with existing services, using XSLT for XML processing, writing image encoders, and extensive testing.

Open source projects:

I have been an active contributor to a number of open source projects over many years, both as a volunteer, and later to some of them as part of my job.

Xiph.Org:

I am one of the core developers of the Icecast streaming media server, and am currently the primary maintainer. I also wrote a powerful streaming audio encoding application (IceS2) to work with Icecast. I have written several of the standard Xiph tools for vorbis and ogg, as well as contributing to the Vorbis, Ogg, and Theora standards and reference implementations. I continue to maintain these applications.

Apache:

I was a developer and committer for Apache Jakarta Slide, a WebDAV server and client implementation written in Java. I worked on fixing bugs, improving specification compliance, and some optimisation work. I also contributed in minor ways to several other Apache sub projects, including Tomcat.

GStreamer:

I have made substantial contributions to the 0.10 series of the GStreamer multimedia framework (widely used on Linux systems), both to the core architecture, and to many of the provided plugins. I continue to contribute to GStreamer regularly.

Flumotion:

I have worked extensively on the Flumotion streaming media server, including much of the design work for the 0.3/0.4 series, to make the system much more reliable and scalable.

Education:

1998 - 2002: The University of Melbourne, Melbourne, Australia
BE (Honours) in Computer Engineering.
BSc in Computer Science.
Full results and transcript available on request.

Major Awards:

2002: Received "Best Project" and "Best Research Project" awards for major final year engineering project.
1999: TI DSP Challenge: first prize, Australian division. Second place, Asia-Pacific.
1998: Received Melbourne University Faculty of Engineering Partnership Scholarship.
1998: Received Melbourne University Faculty Scholarship