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India

Gautham Ganapathy

Skills

C/C++, Lisp, Assembly language (x86, TI C64x, ARM11, Quartics QV1500), Perl, FreeBSD, Linux

Technical Interests

Compiler technology (particularly with respect to optimizers), AI, video compression

Education

1994-1996 Rishi Valley School, Andhra Pradesh

ISC

- 83 % avg with 92 % in math and 97 % in comp sc

1996-2000 TKM College of Engg, Kerala

B.Tech (Comp Sc)

- 70 % avg

Professional experience

9/2007 - Present Wipro Technologies, Bangalore, India

Project lead / developer

- Enhancement and optimization of MPEG-2 (HD) and VC-1 (SD) decoders on a proprietary multi-core (12 dedicated for video processing) video DSP. Was module lead and developer for the VC-1 optimization. Initial target was completion of B-frame support to the main code and optimization for 30fps SD for CES 2008 demo, with later optimization upto HD.

4/2006 - 9/2007 Wipro Technologies, Bangalore, India

Project lead / developer

- Development of a media-centre application for an automotive project. An existing telematics project with basic media playback was to be enhanced with audio and video playback with multiple formats such as CDDA, MP3, WAV, WMA, MPEG1/2 files, VCS, SVCD and DVD. Was involved in the design of the system, handled modules for playback of audio and video file playback, as well as coming up with solutions for various problems that came up along the way.

1/2006 - 4/2006 Wipro Technologies, Bangalore, India

Project lead / developer

- Follow-up to the H.263-based videophone prototype project for addition of further enhancements.

11/2005 - 1/2006 Wipro Technologies, Bangalore, India

Developer

- Ported and optimized Wipro's H.264 code for the ARM11 platform. Was also involved in studying and setting up the ARM11 MMU and cache system.

9/2005 - 11/2005 Wipro Technologies, Bangalore, India

Project lead / developer

- Wrote software for a secondary TI TMS320C6713-based audio decoder board for an automotive telematics unit. Involved getting TI's AAC decoder and as well an MP3 encoder library running on the TMS320C6713 DSK and then writing an application to setup communication b/w the 6713 and the main SH4 based board. Communication was performed over the HPI with interrupts and shared memory based synchronization for transferring audio data

4/2005 - 9/2005 Wipro Technologies, Bangalore, India

Project lead / developer

- Developed a simple H.263-based videophone prototype with custom low bit-rate rate-control enhancements specified by the customer.

1/2005 - Present Wipro Technologies, Bangalore, India

Software Developer

- Optimized the H.264 main-profile decoder for the DM642 platform

12/2004 - 1/2005 Wipro Technologies, Bangalore, India

Software Developer

- Wrote an MP4 decoder to parse an MP4 stream and extract any embedded tracks. Modified this code to work on an incoming data stream and integrated it with H.264-baseline/AAC-LC decoder. Ported this to the DM642 platform to accept an MP4 file streamed over the network and render the synced decoded audio and video.

6/2004 - 12/2004 Wipro Technologies, Bangalore, India

Software Developer

- Optimization of H.264 baseline decoder for TI's DM642 platform. Additional tasks involved implementing a small prototype application around the decoder, which would receive an H.264 stream from the PC over TCP/IP and display it on the monitor attached to the board

12/2001 - 5/2004 Wipro Technologies, Bangalore, India

Technical Support

- Customer support for TI customers. Provide technical support for developers using TI processors. Required in-depth knowledge of C24x and C28x micro-controller DSPs, their instruction set and peripherals as well as C, Code Composer Studio 2 (TI IDE) and DSP/BIOS (TI RTOS)

9/2001 - 12/2001 Wipro Technologies, Bangalore, India

Software Developer

- Memory optimization of an MPEG4V1 audio decoder (LC profile). This is then integrated with the video and systems part and put in a 3DSP processor. To be used for mobile video communications

4/2001 - 9/2001 Wipro Technologies, Bangalore, India

Software Tester

- Third party testing of a resource management tool called STORMS (Severn Trent Operational Resource Management System) from Severn Trent Systems. Involved the testing of the upgrade of the tool from v2.4 to v3.2 with particular

attention to performance benchmarks. Env was Windows NT 4, HP-UX, Oracle, STORMS

12/2000 - 4/2001 Wipro Technologies, Bangalore, India

Developer

- Developer in account called BGTransco (British Gas Transportation Company). Project is part of the complete management and control of the transportation system. Work involves a tool called COOL:Gen. Generates code running on NT (client) and Unix (server).

Skills

Languages - C/C++, Assembly language (x86, TI C64x, ARM11, Quartics QV1500), Lisp, Perl
Platforms - VxWorks, FreeBSD
Dev Env - VC++, Code Composer Studio, Code Warrior for ARM, Tornado

Languages

English, Malayalam

References

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Objective

I would like to work as part of a development team in the field of embedded systems, compiler development, distributed computing or game programming