

# Mike Kiefer

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July 2004 - Present

*Experience* DivX Inc., San Diego, CA

DivX develops video encoding and decoding technology for the MPEG-4 based DivX codec.

## **Sr. Software Engineer (October 05 - present)**

I have served as a Software Engineer on many teams to develop products including Consumer Electronics middleware SDKs, DivX Media File Format libraries, Mobile SDKs, and Digital Rights Management (DRM). I am the Lead Engineer for DivX DRM. I design and develop ANSI C source code for DRM clients for embedded devices such as DVD Players, Set Top Boxes, & Mobile Phones. I also lead DRM system architecture and design efforts that include components such as VOD servers, embedded clients, and PC Player applications. I have authored technical specifications on DRM, DivX File Formats (AVI and DivX Media Format), and the DivX MPEG4 ASP bitstream. I have also worked on various Consumer Electronic engineering tasks like developing certification kits for encoders and decoders, custom tools, and PHP web sites for DRM testing.

## **Field Applications Engineer (July 04 - October 05)**

My responsibilities were to assist partners implement and integrate the DivX technology (including playback of DivX MPEG4 ASP, AVI, Subtitles, DRM, DivX Media Format (DMF) menus, and Connected home video streaming) into their consumer electronic video devices (DVD Players & IC chips) in C/C++ embedded environments.

I also build custom features for software partners. This includes encoding software developers running on the PC using Directshow or VFW. I completely integrated DivX Features into a (embedded Linux/uCLinux/C++) Sigma based DVD Player. I have traveled to customer and partner sites to support their integration efforts at an engineering level.

## **Packetvideo Network Solutions, San Diego, CA**

November 2000 - July 2004

### **Member of the Technical Staff (SW Engineer level 4)**

Packetvideo develops software that provides streaming of MPEG4 video and audio over wireless cellular networks. I was also the lead software engineer for the PVAuthor product. PVAuthor is a MPEG4 audio/video encoding, capture, and streaming application that runs in the MS Windows environment using MFC, ActiveX, Directshow. I also worked on the PVServer development team. PVServer is the multimedia streaming server module written in C++ that runs on HP-UX, Solaris, and Linux. Some of the tasks that I've worked on include:

- Client/Server communication handling task
- RTSP Protocol message handling
- Developed and maintained streaming multimedia playlist management
- Built automated unit tests in PERL
- Perform design and code reviews
- Develop and maintain application code for PVAuthor in MFC
- Develop and maintain interface and GUI features of the audio/video encoding control Active X
- Develop and maintain interface and SDK module of the audio/video encoding engine COM object
- Develop and maintain Directshow filters within the encoding engine COM object
- Develop and maintain sample applications for the encoding COM object and the encoding Active X control in VC++, VB, and asp
- Perform project management tasks for the PVAuthor product line
- Perform requirements analysis
- Developing a system stability component in order to maintain system longevity and stability, utilizing WinNT performance APIs and counters
- Developed Symbian applications to implement core mpeg4 technology engines for embedded devices (cell phones)
- Participated in the design and development of a memory management system on multiple platforms (HP-UX, Solaris, Linux, Win32, & S)
- Performed requirements analysis, detail designs, detail design reviews and audits as well as code reviews. I utilized Rational ClearCase & ClearQuest for Configuration Management (CM) and defect tracking duties.

I was a Member of the Ship Self Defense System (SSDS) Mk2 Mod0 Integrated Product Team, responsible for the design and development of the Display Services Software Component of the SSDS for the U.S.S. Nimitz. Some of my responsibilities included the following:

- Developed and maintained the Motif and X-Windows display windows (GUI/HMI), and command and control tools for Weapons and Engagement Modules for the SSDS on Q-70 consoles running HP-UX in C++
- Created detailed design documents using Rational Rose (OOA&D)
- Created detailed design descriptions (white papers)
- Participated in design and code reviews
- Developed and maintained the real time communication between the Display Services and the other software components in the system running on VX-Works.
- Completed a training course for object oriented analysis and design (OOA & D) with Rational Rose

**Chariot Software Group, San Diego, CA**  
**Project Application Engineer**

9/1996-6/1999

I managed, developed, and maintained Windows/Mac based (C++) test preparation programs for college exams (GRE, GMAT, CBEST, etc.). Some of my responsibilities included the following.

- Managed the development of each project
- Developed the code for the GUI (Menu Screens, Splash Screens, dialogs, etc.)
- Built and configured the test question database for each project
- Interfaced directly with the customer (test prep book publisher) to receive and develop requirements, and deliver final products
- Lead beta tester for a complete line of educational software. Logged over 1000 engineering defects in a quality assurance effort
- Supervised the training of the technical support representatives
- In-house graphic designer. I created images for splash screen, menu screens, program icons and image buttons
- Utilized Installshield 5 and Demoshield to write installation scripts for final products and automated product demonstrations

*Education*

• **San Diego State University, San Diego, CA**

Bachelor of Science - Computer Science, May 1999

Information Decision Systems (IDS) 483 - Networks and Telecommunications, Spring 2004

• **San Diego Center for Education and Technology, San Diego, CA**

Security+ Course (Internet and Network Security), January - March 2003

A+ Course (Hardware/Software Troubleshooting), June - August 2002

C# Programming in the .NET Environment, April - June 2004

• **Pacific Wings Flight School & Miramar College, San Diego, CA**

Received Private Pilots License, May 2002

PPL Knowledge Exam: 98%

• **Torrance High School, Torrance, CA**

High School, June 1994

*Computer  
Software  
Skills*

- C/C++ - (Win32, MFC, Visual C++, Active X, COM, UNIX, Motif, X-Windows)
- Visual Basic, C# .NET
- Directshow
- PERL
- PHP
- Java
- Subversion (svn)
- Linux, Solaris, HP-UX
- Symbian

*Security  
Clearance  
Awards*

Held a Secret level Security Clearance while employed at Raytheon Systems.

Torrance High School Outstanding Achievement Award in Industrial Arts 1994

Honorable Mention for Geometry in the Golden State Exam 1992

*Miscellaneous  
Experience*

- Advanced Level Sailor - Sailed in Catamaran, J-24, Holder 18, Lasers, Sabots, and wind surf boards
- Certified NAUI Open Water 1 Scuba Diver with marine environment and underwater photography specialties
- Organized Sports include Baseball, Basketball, Soccer and Football. Awarded all-pioneer league offensive guard in 1994
- Mechanical experience includes performing all vehicle maintenance and repairs on my personal vehicles as well as a 1-year auto shop course and 4 years of wood shop courses.
- Photography training includes photograph and developing lab course