

# Jonathan W. Hoyle

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## EMPLOYMENT

*4/05 – present Eastman Kodak, Rochester, NY*

*10/94 - 2/01 Macintosh Software Architect*

Coordinating Mac OS X development for Kodak's AiO Inkjet printer family host software with distributed development teams. Primary responsibilities include defining and authoring software specifications for requirements, design software system architecture and manage defects and solve technical programming issues. Hands on involvement with C/C++ and Objective-C development with Xcode projects.

Attended five out of the last six Apple Worldwide Developer Conferences so as to obtain latest information on upcoming development plans for Mac OS X and iOS.

Experience writing C/C++ code for Xcode projects, including application and dynamic library development. Primary developer of communications modules for USB over I/OKit and TCP over BSD sockets in a multithreaded library. Additional experience includes cross-platform development with Visual Studio, REALbasic and Java. Many years of printing experience across inkjet and thermal printer families.

*3/01 – 4/05 Gene Codes Forensics, Ann Arbor, MI*

*Senior Software Engineer*

**World Trade Center:** Design and Development of M-FISys (Mass Fatality Identification System), the DNA forensic identification software used by the city of New York to identify the remains of the victims of the World Trade Center attack on 9/11. In September 2001, Gene Codes was contracted by the Office of the Chief Medical Examiner to design and write the software; implementation is done using the XP Methodology and the C# programming language on the .NET platform. The development team makes weekly releases, each of which is personally delivered to New York.

Primary work in Kinship Analysis for Mac OS X and Windows. This involves determining likelihood ratios and the mathematical equations used for the computations. Metrowerks CodeWarrior was used for the development of the C++ algorithmic code with interfaces for both command-line and cross-platform GUI.

**Sequencher:** Developing updates to the critically acclaimed Sequencher, a DNA sequence analysis software package available for MacOS and Windows. Instrumental in the Carbonization port of Sequencher 4.2 to Mac OS X. Involved in the development of Sequencher versions 4.5, 4.2.x and 4.1.4. Development done in C++ with Metrowerks CodeWarrior.

*7/93 - 6/94 DuPont Core Technology, Wilmington, DE*

*Macintosh Software Developer*

Designed and implemented DuPont's HyperColor application, used for extending the color gamut on DuPont printers, as conceived and designed by noted color scientist and expert, Don Hutcheson. The software was praised in MacWeek's review. Contracting Agency: Wesson, Taylor, Wells. Development using MPW C and Metrowerks CodeWarrior.

## SKILLS & ACHIEVEMENTS

- Very strong C/C++ knowledge and capabilities
- Technical leadership of Mac OS X development teams
- Organizing requirements and specifications
- Advanced Mathematical skills useful for computer modelling and algorithm analysis
- Published Hoyle's Poker shareware game on Classic Mac OS.
- BSD Unix-level development within Mac OS X
- Macintosh programming using the Carbon API
- Knowledge of the Xcode and CodeWarrior development environments
- Experience with REALbasic for GUI generation on both Macintosh and Windows
- Experience with giving technical presentations on various topics.
- Experience developing web-based technologies, such as JavaScript, PHP and CGI Perl scripting
- Experience with Visual Studio, C# and the .NET Framework.
- Experience with the XP (Extreme Programming) methodology

## PUBLICATIONS & PRESENTATIONS

- 10/11 *Forensic Mathematics & the World Trade Center Project, **St. Bonaventure University***
- 3/11 *A Mathematician in the Real World, **State University of New York - Geneseo***
- 9/05 – 8/10 *According to Hoyle... column, **MacCompanion** magazine*
- 4/09 *Introduction to Surreal Numbers, **Rochester Institute of Technology***
- 4/08 *Counter-intuitive Results from the Hyper-reals, **Syracuse University***
- 10/07 *Infinitesimals in Modern Mathematics, **Monroe Community College***
- 5/07 *DNA identification algorithm co-inventor, **US Patent #7,211,388***
- 7/05 *Cross-Platform Approaches from a Macintosh Perspective, **MacHack 20***
- 8/04 *Most Functional Output Winner, **International Obfuscated C Code Contest***
- 2/03 *Mathematics of DNA Identification, **American Academy of Forensic Science***
- 1/03 *Development Under Extreme Conditions, **Pacific Symposium on BioComputing***

## EDUCATION

- Graduate Studies, **University of Michigan: Mathematics/Computer Science***
- Bachelor of Science, **University of Delaware: Mathematics/Computer Science***