

NICOLAS FOURNEL

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French Citizenship

OBJECTIVE

To lead a team in the development of next-generation audio tools and engines.

SKILLS

- Management / Leadership: 4+ years managing a multidisciplinary team. Good interpersonal skills. Interface efficiently with artists and engineers. Experience working with European, American and Japanese teams.
- Software engineering: good knowledge of data structures, algorithms, and design patterns, especially in the context of video game development.
- Programming languages: over 10 years of practice of the C family (C/ C++ and now C#).
- Tool development: 10-year experience (with Win 32 API, MFC, and now .Net). Ability to design intuitive and efficient tools.
- Audio engine development: voice allocation and polyphony management, environmental audio (3D audio positioning, occlusion / obstruction, reverberation, HRTF filters etc...). Sound effects scripting. Procedural audio. Streaming. Real-time audio effects. Interactive music systems.
- DSP programming: mathematics of signal, synthesis techniques, filter design, signal analysis, voice processing and coding.
- Composition and sound design. Experience with numerous hardware synthesizers, samplers and effect units. Extensive knowledge of the main synthesis, audio processing and MIDI software packages (Sound Forge, Sonar, CSound etc...).
- Languages: English, French (fluent), German, Japanese (JLPT level 4).

EMPLOYMENT HISTORY

Electronic Arts, Vancouver, Canada

2006 - present

Lead Engineer (SE III)

Currently working at EA Tech, Electronic Arts central technology department, on next-gen audio tools: asset management, profiling, in-game mixing etc...

Konami, Honolulu, HI

Dec 2004 - 2006

Lead Audio Programmer / Audio Programmer

Dance Dance Revolution: Universe (Xbox360), Dance Dance Revolution: Ultramix 4 (Xbox), Frogger Toy Trials (DS) Konami All- In (Xbox), Frogger Helmet Chaos (DS, PSP), Lost In Blue (DS)

- Responsible for all the audio technology of the studio (engines, tools, implementation).
- Design of a multi-platform audio engine (including versions for Xbox, Xbox360, DS and PSP).
- Development of a multi-platform audio tool (KAT: Konami Audio Tool).
- Triggering of music, voicelines and sound effects in the games.
- Work on other Konami tools, such as StepMaker, used to edit steps for Dance Dance Revolution.

Factor 5, San Rafael, CA

Jul 1999 - Dec 2004

Senior Software Engineer

Rogue Squadron 3: Rebel Strike (GameCube) Rogue Squadron: Trilogy (Xbox, unpublished)

- Design and development for Nintendo of audio algorithms burned in the DSP of the GameCube: sample rate converters and HRTF filters.
- Development of the new version of MusyX multi-platform audio content editor, shipped with every GameCube development kit.
- Port of the MusyX engine to XBOX.
- Design and development of MusyX filters and reverberation.
- Design and development of Factor 5 GUI library.
- Refactoring and extension of the Audio library.
- Music, voicelines and sound effects triggering in the games.

Synoptic, Paris, France

1996 - 1999

Founder and R & D manager

- Team management.
- Design, development and distribution of innovative music software including one of the very first modular software synthesizers for Windows.
- Research & development of audio algorithms and multimedia products for third parties.
- Products distributed in 25 countries.

Fretless International, Paris, France

1995

Senior Software Engineer

- Development of multimedia software.

Computer specialist in the French Army (compulsory military service)

1994

- Bronze medal for exemplary work.

Technology reviews for French magazines

1988 - 1999

EDUCATION

Epita in Paris / France: "Ecole pour l'informatique et les techniques avancees"

School of engineering in computer science and advanced technologies)

Specialization I3A: (artificial intelligence, automatism, and digital signal processing). (3 years)

"Mathematiques Superieures / Mathematiques Speciales"

High Studies in Mathematics and Physics (2 years)

Baccalaureat C (Mathematics / Physics).