# Benjamin GOLINVAUX

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## PERSONAL INFORMATION

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|---|---|
| Birth date | October 2nd, 1973 |
| Citizenship | Belgian |

## EDUCATION

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|---|---|
| **University of Liège** | Liège, Belgium |
| M. Sc. in Engineering – Electronics (EE Engineer) | June 1996 |

## OBJECTIVE

Apply my software engineering skills to design and implement services, components, and interfaces, with an emphasis on image and media processing, real-time performance, maintainability, reliability, and short release cycles through continuous delivery.

I am available, as a freelancer, for development tasks and consulting on software architecture and methodology, in accordance with my objective.

## EXPERIENCE

| **Omniscient Neurotechnology** | Sydney, Australia |
|---|---|
| *Full stack Engineer* | *May 2021 – present* |

- I lead the development of a multi-service backend application that handles networked DICOM communication with hospital devices such as scanners, MRI machines and PACS systems, performs anonymization and metadata processing and communicates with other services on a Kubernetes-based cluster (on AWS) that perform image processing and machine learning tasks. ([www.o8t.com](www.o8t.com))

**Stack:** Python, Orthanc, JavaScript, TypeScript, Docker + compose, bash, Flask, RabbitMQ, DataDog.

| **Wild Bishop** | Liège, Belgium |
|---|---|
| *Full stack Engineer* | *August 2020 – present* |

- I am using my C++, real-time systems, and networking skills to help the team write a multiplayer video game (for Windows) based on Unreal Engine. As the team senior software engineer, my mission is to both help design the architecture, write C++ code, work on backend TypeScript services and Python or PowerShell scripts, as well as mentor younger developers on technology and good practices. ([www.wildbishop.com](www.wildbishop.com))

**Stack:** C++, Unreal Engine, Python, TypeScript, Azure, PlayFab, AWS, Steam.

### Osimis

*Senior Software Engineer*

Liège, Belgium

*Jan. 2019 – Apr. 2021*

- Osimis provides services and builds products around Orthanc, an open-source (AGPL) Dicom vendor neutral archive used by thousands of doctors and medical imaging technicians worldwide. I worked on backend services and on Dicom visualization desktop and web-based applications. (orthanc-server.com, osimis.io)

  **Stack:** TypeScript, nginx, Qt, WebGL, C++, Web Assembly (Wasm), Docker + compose, bash, CMake, InnoSetup

### Jomago

*Co-Founder - Software Engineer*

Liège, Belgium

*Apr. 2010 – Nov. 2013*

- Jomago designed and sold a cutting-edge cross-platform video stabilizing SDK for software integrators.

  **Stack:** Adobe Plugin SDK, C++, Python, CMake

### PSIO

*Software Engineer (freelance)*

Lasne, Belgium

*Jul. 2011– May. 2021*

- I developed, from A to Z, a graphical desktop application that allows creating audio-visual sequences to drive the PSIO light stimulation glasses, giving the designer the ability to graphically control the evolution of every parameter of a stimulation sequence over time. (www.psio.com)

  **Stack:** .NET, Windows Forms, C#, C++, Juce, InnoSetup

### EVS Broadcast Equipment

*Software Project Manager*

Ougrée, Belgium

*Mar. 2011– Dec. 2018*

- By introducing agile development and best practices in the software development team and taking advantage of modern methodologies, technologies and tools, I am improving the software development workflow and the product quality. (www.evs.com)

  **Stack:** C++, C#, InnoSetup, video encoders/decoders, TeamCity, SVN, GIT, Docker, Python, PowerShell.

### Euresys SA

*Vision Software Manager*

Angleur, Belgium

*May 2003– Mar. 2011*

- Along with the team, I designed, implemented and maintained an extensive image analysis and processing library. (www.euresys.com → products → software tools)

- I led those developments and successfully introduced good software engineering practices: reusability and sound object-oriented design, source control, automated builds and extensive testing (unit testing and integration testing).

  **Stack:** C++, C#, TeamCity, Perforce, CVS, Visual Basic, ActiveX, image processing.

### Arboretum, Inc.

*Montage Team Leader*

Pacifica, CA, USA

*Dec 1999 – Mar 2003*

- I led, from early design to release, the development of HyperEngine AV, a multimedia authoring and editing application for Mac OS X. (sourceforge.net/projects/hyperengine)

  **Stack:** Objective C, Cocoa, CVS, C++, Audio DSP, GCC, GDB.

### EVS Broadcast Equipment

Ougrée, Belgium

*Free-lance developer*

*Apr 2001 – Jun 2001*

- I implemented Browser On Witness (BOW), a multimedia HTTP web server, in C++. ([www.evs.com](www.evs.com))

**Stack:** Custom HTTP server, MFC, C++, SQL Server.

### Deltatec SA / Art & Magic SA

Ans, Belgium

*C++ Software Developer*

*July 1996 – Mar 2000*

- I took part in the development, design and maintenance of a 2D and 3D graphics library (DirectX).

- I designed and implemented real-time rendering algorithms for a professional flight simulator.

- I implemented an optimized bitmap rasterization algorithm for a giant screen controller.

([www.deltatec.be](www.deltatec.be))

**Stack:** Embedded C/C++, x86 vectorized assembly, MFC, DirectX.

## SKILLS

### DOMAINS

Real-time systems, image and video processing, broadcast systems, industrial machine vision, audio and signal processing, medical imaging, DICOM, containerized services and service-oriented architectures, multiplayer and networked video game development.

### LANGUAGES

Lots of experience in C/C++, Python and C# and some experience in Objective-C (macOS/iOS), TypeScript and JavaScript.

### FRAMEWORKS AND TOOLS

.NET, Unreal Engine, WebAssembly (Wasm), Docker, nginx, bash, git, Perforce, SVN, CMake, TypeScript/JavaScript, PowerShell, Cocoa (macOS), InnoSetup, JUCE, TeamCity, GitLab, etc.

### METHODOLOGIES

I have worked with various flavors of both Scrum and Kanban and have helped transition teams from monolithic release phasing to agile delivery with automated, validated, and frequent releases.

### OTHER SKILLS AND INTERESTS

Photography (skilled at Photoshop, Lightroom) and digital drawing and painting (Photoshop, Procreate).