

## Work Experience

**Software Engineer**, UDIMU SA, Neuchâtel, Switzerland, 02/2021 - Current

Senior Developer of 3D tools and interactive audiovisual systems:

- Design and development of augmented reality applications (iOS and Android)
- Development of interactive experiences using Unity3D and Unreal
- Optimisation of augmented reality applications
- Shader development
- Team management
- Supervision of external partners
- Instagram and Facebook AR filters using Spark AR Studio
- Level 3 IT support

Programming: C++, C#, ShaderLab, React, Javascript.

Unreal, Unity3D, Unity AR Foundation, ThreeJS, NodeJS, Blender, Substance Painter.

**Co-Founder**, Thunder Sparrow, Lausanne, Switzerland, 03/2020 - 02/2021

Senior Video Games Developer (Nintendo Switch and Steam):

- Programming of gameplays, user interfaces, AI
- Integration into the Unity 3D engine
- Optimisation for Nintendo Switch console (2D game)
- 2D shader development (URP)
- Instagram and Facebook AR filters using Spark AR Studio

Company administration:

- Creation and administration of the company
- Business plan development
- Head of communication on social media (creation of content and communication strategies)
- Team management
- Supervision of external partners

Video game:

Spinny's Journey.

Programming: C#, ShaderLab.

Unity3D, Nintendo Switch SDK, Steam SDK, Render Doc, Substance Painter.

**Software Engineer**, OZWE SA, Oculus Studios, Lausanne, Switzerland, 07/2017 - 03/2020

OZWE SA has been a pioneer in the field of Virtual Reality: as Oculus Official Partner we created and developed VR games with a deep foundation in mobile optimisation techniques and solid knowledge in cross-play and cross-platform development.

We released three highly successful games on Oculus Rift, Quest, Go and Samsung Gear:

Anshar War 2, Anshar Online, Death Lap.

Oculus Development SDK, Oculus Avatar SDK, OVR Metrics Tool, Oculus Audio Spatializer, Render Doc.

C++, C#, Shaders (GLSL and ShaderLab), Machine Learning, Unity3D, Unity ECS and Jobs, Substance Painter, Blender.

**Software Engineer**, Ars Electronica Solutions, Linz, Austria, 01/2015 - 01/2017

Developer of 3D tools and interactive audiovisual systems for festivals, museums and international companies:

- Design and production of software for data visualisation
- Development of innovative solutions using C++ frameworks and game engines such as Unity
- Design and creation of augmented reality applications for showrooms of international companies
- Optimisation of 3D models
- Technical documentation for users
- Client support

Programming: C++, C#, OpenGL, OpenCL, GLSL, Javascript, Python, WebGL ThreeJS.  
Unity3D, OpenFrameworks, Arduino, Raspberry Pi, NodeJS, Max/Msp, Juce.

**Software & Web Developer**, Equinoxe MIS Development, Lausanne, Switzerland, 11/2010 - 10/2012

Development of Is-Academia, a web software for the academic management of schools and universities.

- Software maintenance and development of new features
- Client support

Programming: PL/SQL, Java, Javascript, Selenium, AJAX, XML, XSLT, CSS, HTML.

**Software & Web Developer (internship)**, Nestlé, Vevey, Switzerland, 07/2010 - 10/2010

- Development of an Intranet search engine
- Creation of an interactive DashBoards to visualise and analyse sensible data from Nestlé projects

Programming: Javascript, HTML, AJAX, CSS, Microsoft Access, Visual Basics.

**Web Developer**, Ecole Polytechnique Fédérale of Lausanne (EPFL), Switzerland, 09/2009 - 3/2010

For an European Community Project we developed a technology to edit web pages' contents directly on the browser.

Programming: XML, HTML, CSS, Javascript, AJAX, REST, XTiger, XSLT, XQuery, Tomcat, Saxon, eXist, Orbeon.

## Education

**Master's Degree in Media Design**, Haute Ecole d'Art et de Design (HEAD), Geneva, Switzerland, 2012 - 2014

**Erasmus**, Ecole Polytechnique Fédérale of Lausanne (EPFL), Switzerland, 2008 - 2009

**Master's Degree in Computer Engineering**, University of Siena, Italy, 2007 - 2008

**Bachelor's Degree in Computer Engineering**, Politecnico di Milano, Italy, 2002 - 2007

## Computer Skills

### Programming languages:

- C++: Expert. Unreal, OpenFrameworks, OpenGL, OpenCV applications.
- C#: Expert. Unity3D, VR and AR applications.
- ShaderLab: Expert.
- GLSL: Expert.
- Python: Good level.

### Web technologies:

- HTML5: Expert.
- JavaScript: Expert. Libraries: NodeJS, Bootstrap, JQuery.
- Technologies XML (XSLT, XPath, XML Schema, XML-Dom, XQuery, XPL Pipeline, XProc, XTiger): Expert.
- CSS3: Expert.
- GIT: Expert.
- CMS: Good knowledge of Joomla, WordPress and Zend Framework.

### Creative technologies:

- Unity3D: Expert. Virtual reality, augmented reality & mixed reality projects.
- Processing: Expert. Visual sketches.
- Arduino: Expert. Rapid prototyping.
- Raspberry PI: Expert. Physical computing.
- OpenFrameworks: Expert. Video games, video installations, projection mapping.
- Max/Msp: Expert. Audio/Video installations.
- MadMapper: stage design, DMX, ArtNet, LED.

**Graphic design:**

- Adobe Photoshop: Good level.

**Video design:**

- Adobe Premier, Final Cut: Good level.

**3D design:**

- Blender: Good level.
- Adobe Substance Painter: Good level.

**Database:**

- SQL: Good level, using PostgreSQL, PHP and XQuery.
- PL/SQL: Good level.
- Good knowledge Microsoft Access and MySQL.

**Operating system:**

Linux, Macintosh, Windows (Batch MS-DOS).

**Languages**

- **Italian:** mother tongue.
- **French:** C1.
- **English:** C1.
- **Spanish:** B1.
- **German:** A2.

**Exhibitions**

**Once Upon a Tale**, Mudac 2016, Swiss Gaming Corner 2014, Lift China 2014, The Book Lab EPFL 2014, Grafik14 Zurich, Milan Salone del Mobile 2014, Swissnex Boston 2014, Mobilisable Paris 2013.

**Re-Think The Eames**, Curated by Alexandra Midal, Salone del Mobile, Milan, 2013.

**La Machine Enchantée**, Blend Web Mix Lyon 2014, WIAD Lyon 2015.

**Awards**

**Selected Project**, Food Open Data, Lausanne, 2017.

**Prix of the Best Idea**, UmiX, Lyon, 2014.

**Nominated for the Award of Excellence**, Hans Wilsdorf Fondation, 2014.