

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.