

Orane Marchal

Paris 10
FRANCE

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OPTICAL DESIGNER

PROFILE AND SKILLS

- Industrial developments with multidisciplinary teams
- Relationship with international clients, suppliers and plants
- Optical design: CATIA V5, Zemax, optical simulations, analysis of chain of dimensions
- Optical measurements: optical validation, crossover tests, tooling tuning
- Use of quality tools: QRQC, PDCA-FTA
- Geometric optics, physical optics, radiometry

WORK EXPERIENCES

Dec. 2011 - Today **Valeo Visibility (Bobigny, France)**

Optical team member working on lighting module for front lighting.

Development of halogen and xenon mono-function and bi-fonction modules using reflector technology and LED Matrix and Pixel projectors using light guides and direct imaging for European, Chinese and American markets.

Requests for Quotations, design, optical simulation, mock-ups, measurements, industrialization, production tools tuning and production issues resolution.

Creation of procedures, methodologies and design rules, specification and validation of internal design tools.

Collaborators training.

2010 – 2011 **M2M-NDT / CEA-LIST (Osray / CEA Saclay, France)**

Physics engineer in Non Destructive Testing using ultrasounds. Analysis of measurements in order to identify defects in materials. Use of the CIVA software.

2008 – 2010 **Apprenticeship at the CEA, Military Application Division (Bruyères-le-Châtel, France)**

Design, realization and optimization of an optical diagnostic in order to characterize an air plasma.

PATENTS

2017 **FR3064340**

"Module optique pour véhicule automobile, incluant un élément réflecteur dont une zone spécifique permet de réduire localement l'intensité lumineuse".

Local reflectivity reduction of the module folder to reduce locally the intensity of the beam of a specific area of the beam in order to make the beam compliant with another regulation and therefore reduce costs (reflectors reference number limitation).

2017	EP3357752A1 "Lighting module of a light beam for a motor vehicle". Use of an additional light source and collimator creating a beam directed toward the cut-off between the low and high beams to improve homogeneity of the full beam.
2018 - Today	3 unpublished patents.

EDUCATION

2007 – 2010	Engineer student at the Institut d'Optique Graduate School (IOGS) in Palaiseau, France Cumulative Master 1 and Master 2: "Optique, Matière, Plasma" (Optics, Matter, Plasmas) at the IOGS
2004 – 2007	"Classe Préparatoire" , intensive studies in Physics and Chemistry, Lycée Saint-Louis (Paris)
2001 – 2004	Lycée Sarcey , Dourdan, France Competition in the national competitive examination in mathematics and philosophy ("Concours Général", around 2000 contestants) June 2004 : Baccalauréat, Scientific, with high honors

COMMUNITY LIFE

Since Sept. 2014	Protection Civile Paris Seine - 10th arrondissement Local director of humanitarian activities Team leader of <i>first responders</i> (certification PSE2 in May 2015). <i>Duty calls for the emergency services of the Paris Fire Brigade and the SAMU, First Aid Stations</i> <i>Mobile assistance to Paris' homeless population and assistance to populations during fires, trainwrecks, major trains delays, mass casualties.</i> <i>Organization of our annual gathering of hygiene products for our humanitarian actions.</i>
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LANGUAGES

French	Mother tongue
English	Fluent 2010 : TOEIC (975 points)
German	Elementary

COMPUTER SKILLS

Operating Systems	Apple Mac OS Microsoft Windows
Languages	Visual Basic (beginner) Google Apps Script (beginner)
Softwares	CATIA V5 Zemax (training on going) ASAP Microsoft Office Google Docs Microsoft Project

SPECIAL INTERESTS

Sport	Krav Maga , since 2016, orange belt Kung-fu (2004: black sash rank)
IOGS Alumni	Member of the association Sup'Optique Alumni