GABRIEL MÉNARD, M.ENG.

g@design-game.com • 514 574-0557

EDUCATION

- ✓ **Master's of Electrical Engineering**, Completed January 2008
  McGill University, Montréal, Québec, Canada
  Research Area: VLSI and Video/Image Processing
  Mention: Dean's Honor List
- ✓ **Bachelor of Electrical Engineering**, Completed December 2004
  McGill University, Montréal, Québec, Canada
  Cumulative GPA: 3.50/4.00
- ✓ **Electronic Technician**, Completed May 2000
  Lionel-Groulx College, Sainte-Thérèse, Québec, Canada

RECENT WORK EXPERIENCE

Design Game inc. [2011-2019], **Design Game (sole proprietorship)** [2019-Now]**,** Laval, QC, Canada

CAD specialist. Multidisciplinary contractual design work. Most notable public project is the design, manufacturing and marketing of the Division Furtive electronic wristwatch series from 2011 to 2017.

More information at www.design-game.com and www.division-furtive.com

Avnera Corporation, Portland, OR, U.S.A. [2009-2011]

Consultant in electronic product design. Responsible for the PCB design and electromechanical integration of various audio amplifier/DSP products.

• Main products developed: Vizio VHT510, Vizio VHT210, Vizio VHT215 and Insignia NS-SBAR.

• Worked remotely and on-site with Vizio (U.S.A.), Best Buy (U.S.A./China), Audyssey (U.S.A./China.), GGEC (China), Onkyo (Japan), WNC (Taiwan) and Wistron (Taiwan).

SiLEEK Design inc., Laval, QC, Canada [2007-2009]

Founder. SiLEEK was an electronic and industrial design company which developed projects to improve traditional evaluation/demonstration solutions for semiconductors (a.k.a. Applications).

• Major customers have been Analog Devices (cell phone demonstration solution for integrated circuits, a USB dongle demonstration solution for integrated circuits and various evaluation boards) and the McGill University (electronic music effect module).

Analog Devices, inc., Wilmington, MA, U.S.A. [2004- 2007]

Electronic Engineer for ADI's digital audio group.

• Lead digital hardware designer on low-power mixed-signals audio CODEC ASIC (ADAU1361) for mobile applications. Designed the filter engine (decimator/interpolator) and other blocks while being responsible for the overall digital integration. Insured testability of the ASIC.

• Developed a fully digital audio class D modulator, an audio class D pop-noise reduction circuit (US Patent #US 7,872,522) and a high-power audio class D output stage during internship.

SKILLS & ATTRIBUTES

Technical skills:

- 15 years experience in products, electronics and printed circuit board design
- 5 years experience in the semiconductor industry
- Wide range of EE skills:
  - PCB: Upverter, Alitum Designer, OrCAD Capture & Layout, PowerPCB and PADS
  - MCU:, Microchip PIC, TI MSP430, Cypress EZ-USB, Motorola HC12 and ARM
  - Programming: C, C++, C#, PHP, HTML, Matlab, Pascal and Assembly
  - VLSI/ASIC: Verilog, VHDL, Synopsys and Cadence
  - FPGA: Xilinx ISE, Altera Max+plus II and Quartus
  - Simulation: Spice, Matlab, Mentor Graphics Modelsim and Cadence SimVision
  - Extensive experience with soldering, scopes, spectrum analyzers, Audio Precision and other lab equipment.
- Industrial and graphic design skills:
  - 3D modeling with SolidWorks and Maxwell Render
  - MasterCAM and CNC machining (I've operated my own CNC for many years)
  - FDM rapid prototyping, thermoforming and injection molding
  - Proficient with Adobe Photoshop and Illustrator
  - Drawing aptitudes and familiar with Wacom drawing tablet

Languages:

- French: Fluent (written and spoken)
- English: Fluent (written and spoken)
- Basic notions of Spanish, German, Italian and written traditional Chinese

OTHER WORK EXPERIENCE

Okiok Data, Embedded software for Ingenico payment terminal**.** Contractor for 3 months in 2016.
McGill Racing Team, McGill University, Montreal, Canada [2001-2006]

Electronic hardware designer. Development of the award winning Engine Control Unit (ECU) for the McGill Formula SAE racing car. *See awards.*

Digital Audio Amplification Project, McGill University, Montreal, Canada [2003-2004]

Electronic hardware designer. Researches in the field of class D audio amplification techniques and implementation of an award winning class D audio modulator in a FPGA device. *See awards.*

AVAILABILTY

- **Part-time (contractual)**
- **Remote work only**
- **Mostly interested in PCB Layout CAD and 3D modeling CAD work**

AWARDS

2015 **US Patent #USD730750 S1**, First inventor for an electro-mechanical watch design. *See work experience above.*

2011 **US Patent #US 7,872,522**, First inventor for a pop noise reduction scheme for switching mode amplifiers. *See work experience above.*

2008 **McGill University**, Dean's Honour List for Master's thesis.

2007 **Analog Devices**, 1st place in internal graphic design competition for company's international conference.

2005 **Quebec's Engineering Games**, 2nd place in "machine" design competition.

2004 **Detroit's International Formula SAE Competition – Bosch Price**, 2nd place for Engine Control Unit developed as part of the McGill Racing Team. *See projects above.*

Quebec's Engineering Games, 2nd place in "machine" design competition.

2003 **115th Audio Engineering Society Convention's Student Design Competition**, 1st place for the Digital Audio Amplification Project. *See projects above.*

McGill Engineering Competition (MEC), 1st place in senior design competition. [Selected for Quebec Engineering Competition (QEC)]

2002 **McGill Engineering Competition (MEC**), 4th place in junior design competition. [Selected for Quebec Engineering Competition (QEC)]

2000 **Quebec's Ministry of Education**, Scholarship [2000$]

Lionel-Groulx College, Scholarship for excellence [500$]

1999 **Lionel-Groulx College**, Scholarship for excellence [150$]

HOBBIES AND INTERESTS

- **Sports**: Rock climbing, bicycle riding, snowboarding, yoga, squash, windsurf and surf.
- **Travel**
- **Arts**: Music, classical and popular guitar, visual arts, concerts & movies.
- **Technologies**: Cryptography, electric cars, graphic design, computing & electronic design.