

Benoit Picard

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Profile

- 6+ years of experience in the high-tech industry, with 4 years specialized in testing and calibration
- Energetic, creative and accountable engineer with accurate understanding of physical phenomena
- Strong team-player with demonstrated skills in leadership and in communication
- Hands-on personality with great interest in bringing prototype to life and to the next stage

Education

Bachelor's degree in mechanical engineering, GPA of 3.9

2006 - 2010

Université de Sherbrooke, Quebec, Canada

- Program specialized in product development and design
- Additional master level classes completed in engines (ICE) and in advanced thermodynamics

Specific knowledge & Languages

Languages: French (native), English (full professional proficiency)

Engineering software: Matlab, Simulink, SolidWorks (CAD, FEA, CFD), FeatureCAM, Ansys (FEA & CFD)

Automotive control systems: AVL Puma Open & Equipment, ATi Vision, CANalyzer

Other software: Microsoft Office (including Visual Basic), Photoshop, HTML, CSS, Javascript

Professional experience

Ceragy Engines Inc., Sherbrooke QC

2015 - Present

High tech startup developing high efficiency microturbines

R&D project manager

- Lead and plan research activities in partnership with Université de Sherbrooke
 - Oversee a group of 10 researchers – interns, graduate students and professionals
 - Review scientific journal papers and publish as a co-author
- Design innovative hot section microturbine components
 - Collection and selection of innovative ideas by leading group brainstorm
 - Iterative design with advanced engineering tools (FEA, CFD)
 - Creation of system design tool using Excel VBA and Matlab
- Test and functional evaluation of independent sub-system and complete prototypes
 - Design, fabrication, assembly and instrumentation of test benches
 - Root cause tree analysis of failures with test data and visual inspection
- Complimentary startup activities
 - Engaging strategic supplier for critical components
 - Preparing grants and credits paperwork and documentation
 - Writing microturbine patents (US and PCT)

Professional experience (continued)

Westport Innovations Inc., Vancouver BC

2011 - 2015

World Leader in Natural Gas & Dual-Fuel Engine Technologies

Engine Development Engineer (Test and Calibration) - Combustion, Performance and Emission

- Engine testing from prototype stages to production
 - Generation of test plans and test procedures based on product design requirements
 - Participation in system requirements definition, design review and DFMEA
 - Root cause analysis of failures and shortcomings with multifunctional design team
 - Post-processing coding and automation using Matlab
- Management and coordination of testing activities
 - Preparation of daily work order for technicians and facilities support
 - Instrumentation troubleshooting and data quality review (AVL equipment including FTIR)
 - Leading and mentoring of colleagues and technicians toward technical goals
- Calibration of engine controllers for heavy-duty and high horsepower dual-fuel engines
 - Performance optimization of a high pressure natural gas fuel system
 - Use Design of Experiment (DoE) and response modeling for engine calibration
 - Emission calibration for North-American and European certification
- On-vehicle powertrain testing at OEM test track

Professional internships

CAMUS Research group, Université de Sherbrooke

Winter 2010

Engines and actuators design research group

Research Assistant, developing and integrating test bench for Rim-Rotor Rotary Ramjet Engine Project (R4E)

Pratt & Whitney Canada, Longueuil QC

Summer 2009

Global leader in motorization of small aircrafts

Designer in Product Center Engineering solving production and cost related issues

AAER Inc., Bromont QC

2008

Wind turbines manufacturer – 1,5 to 2 MW

Mechanical engineer in training preparing layouts and assembly how-to for production launch

SCN Lavalin Inc. – Head office, Montréal QC

2006 - 2007

Engineering and construction firm

Software service clerk & Computer inventory manager (2x 4 months internships)

Extracurricular activities during engineering degree – technical projects

Projet Infinity, Université de Sherbrooke

2009 - 2010

Development of a fuel efficient vehicle, and winner of the SAE Supermileage competition in June 2011 with consumption of 2158 MPG

Technical director and chassis head designer, with high technical support on engine design and tests

Baja SAE, Université de Sherbrooke

2006 - 2009

Design and fabrication of an amphibian ATV vehicle for participating in international competitions, 1st place winner in 2007 and 2009

Team lead and technical director (2009), Chassis director (2008)