

# Mechanical Engineer

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## CIVIL STATUS

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BAZIN Arnaud

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*Online profile:* <http://www.doyoubuzz.com/bazin-arnaud>

Driver's license since 2007

Working Holiday Visa valid until January 2017



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## PERSONAL STATEMENT

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Highly motivated and innovation driven mechanical engineer, I am currently seeking a position in process or product development here in New Zealand, where I want to settle after more than a year travelling.

My designing skills, my manufacturing abilities and my knowledge of mechanical and material sciences are valuable assets for an engineer. My experiences taught me to be flexible, thorough and autonomous and my international profile provides me with the faculty to adapt to different professional environments, fluency in English, as well as skills in intercultural understanding.

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## SKILLS AND KNOWLEDGE

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### PROJECT MANAGEMENT

- Competent in evaluating the needs and applying adapted technical means
- Knowledge of production optimisation methods

### SELF MANAGEMENT AND COMMUNICATION

- Strong sense of teamwork, open-minded to new ideas and proactive in a group
- Proficiency in spoken English and good writing skills developed from project work (IELTS score of 7/9)  
Ability to convey information appropriately and accurately

### COMPUTER SKILLS

- Proficiency in Catia V5 and Solidworks (mechanical design), basic knowledge of Delmia and Autocad
- Computer literate (Open Office and Microsoft Office suites)
- Ability to use the Finite Elements Methods and basics of Comsol Multiphysics and Abaqus
- Strong knowledge of numerical simulation (Matlab and Mathematica)

### MATERIAL SCIENCES

- Ability to analyse experimental data or publications and to realize technical synthesis
- Strong knowledge of mechanical characterisation techniques

### MANUFACTURING ABILITIES

- Experience in machining processes: lathe, milling machine, electro-chemical erosion, water jet cutting
- Strong knowledge of plastic injection moulding
- Material shaping skills: polishing, cutting, welding (arc, spot and oxyacetylene)
- Knowledge of 3D printing and prototyping

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## MAIN WORK EXPERIENCES

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**2014 (7 months): Research assistant (internship), Institute of Physics - Rennes, France**

Subject: Determine the fracture toughness of a glass using the chevron notch method in 3 points bending

Missions: Bibliographical research and synthesis of the theoretical data

Creation of a mathematical program (theoretical simulation and application of experimental results)

Realization of the experimental protocol: processing of glass samples for the trials with great precision (20µm) and development of an experimental protocol (device, parameters)

Achievements: Tests on glasses from the German company Schott

Creation of a high-precision cutting shelf

**2013 (3 months): Design engineer assistant (internship), University of Rennes, France**

Missions: Design of a bike light: functional analysis of the needs, components choice, modelling on Catia V5

Dimensioning with a heating study by the finite element method on Comsol Multiphysics

Machining of a fixation device by prototyping (FDM)

Creation of machining plans and of the machining program on Top Solid

Achievements: Realization of a light corresponding to the technical specification

Machining of an anodizing device of aluminium (surface treatment)

**2015 (4 months): Project manager (volunteering), Cultural centre Sacré Coeur, Dakar, Senegal**

Missions: Inventory, reorganisation of the library

Creation of tutorials for daily library tasks on different software

Organization of a cultural event during the Francophone countries week (Caravane des dix mots)

Achievements: Creation of an IT data base

Optimization of the loan process

**2007 to 2015 (13 months): Plastic moulding, Nicoll, Cholet, France**

Missions: Monitoring (aspect, tolerances)

Assembly and packaging of pieces

Setting up of moulds

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## EDUCATION AND TRAINING

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**2014: Master's Degree in Mechanical sciences and Engineering, University of Rennes**

Analytical mechanics, material sciences, modelling, metrology, machining, industrial design

**2012: Bachelor's Degree in Mechanical sciences and Engineering, University of Rennes**

Analytical mechanics, material sciences, modelling

**2011: Preparatory classes in sciences, engineering and civil engineering, INSA Rennes, France**

**2007: Baccalauréat S (NCEA in sciences), Lycée Europe, Cholet, FRANCE**

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## INTERESTS / ACTIVITIES

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- Sports:
  - ✓ Club practice: handball (1 year) and football (10 years)
  - ✓ Occasional practice: basketball, squash
- Reading
- Travels (Senegal, New Zealand, Romania, China, United Kingdom, Germany, Tunisia...)