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Louis Leblanc

Education

2018 **C# Scripting and Plugin Development for Grasshopper**, *Online Course by the Institute for Computational Design and Construction, University of Stuttgart*.

2018 **Artificial Intelligence Strategies for Space Frame Design**, *Week-long workshop led by Institute of Architecture, University of Applied Arts Vienna researchers*, Smart Geometry 2018.

2013 **BASc in Mechanical Engineering**, *University of Ottawa*, Ottawa.

Experience

2019-present **Technical Designer II**, *New Balance*, Boston, Massachusetts, USA.
Computational Design, Sole Unit Development and Engineering.
- Develop computational design tools which use athlete data to generate innovative designs.
- Developed a completely automated rendering service to create photoreal renderings of in progress CAD. This Blender based tool significantly sped up the development process by largely removing the need to review 3D printed models.
- Lead development and engineering of sole units for in-line products. Work closely with design, development and product management as well as Asia assets.

2015-2019 **Mechanical Designer**, *Dynamo Playgrounds*, Rockland, Canada.
Mechanical Design Engineering, Manufacturing Support, Industrial Design.
- Technical lead on large scale custom projects from initial design vision through engineering and finally supporting manufacturing.
- Lead development of a new product line. Computational design tools allowed to quickly explore new shapes for play structures which follow strict design requirements with respect to aesthetics, structural viability and safety standards.
- Developed a computational model through full scale dynamics testing of play vehicles. Analysis and insight gained using Python notebooks.

2014-2015 **Freelance Consultant**, *Prototype D*, Ottawa, Canada.
Industrial , mechanical design and embedded systems in the development of new products.
- Conceived a novel automated 3D surveying system. Formulated the system's architecture and ultimately fabricated a hardware and software proof of concept using 3D printing and the Arduino platform.

2011–2013 **Research Assistant**, *University of Ottawa & Atomic Energy Canada*, Ottawa, Canada.
Research project in the dynamics of the deflagration of hydrogen mixtures in air. This research was done by blowing soap bubbles filled with a hydrogen-air mixture onto a flat surface and filming their combustion with a high speed camera.

Skills

CAD Rhino/Grasshopper, Blender, Cycles Rendering Engine, Keyshot, Substance

Languages Native proficiency in English and French

Electronics Arduino

Programming C, C#, Python

Office Adobe Creative Suite, MS Office Suite

Hands-On Machine Shop Training, 3D printing

Publications

L. Leblanc. GHAnsys. `github.com/louislbnc/ghAnsys`, 2018. Python framework to enable communication between Grasshopper and the Ansys simulation package.