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| **Ken M. Nsiempba**  **(514) 806 1410**  **kmnsiemp@uwaterloo.ca** | **OBJECTIVE**  **I am a passionate research student with a great balance of interpersonal and technical skills. I have a lot of academic/industrial experience in 3D printing and computational design.** |

**Digital Design Tools for Additive Manufacturing**

**EDUCATION**

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| **Master of Applied Science** | Sept. 2018 – Oct. 2020 |
| Mechanical and Mechatronics Engineering  Multi-Scale Additive Manufacturing Laboratory  University of Waterloo, Waterloo, ON  Average of 91%  My thesis focuses on integrating additive manufacturing constraints in topology optimization programs | |

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| **International Academic Exchange** | Jan. 2020 - Mars 2020 |
| Mechanical Engineering  Nanyang Technological University, Singapore  My team and I investigated the existing and potential applications of artificial intelligence in 3D printing | |

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| **Bachelor of Mechanical Engineering** | Sept. 2013 - May 2018 |
| McGill University, Montréal, QC | |
| Cumulative GPA of 3.56/4.0 - May 2018 | |

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| **International Academic Exchange** | July 2016 |
| Beihang University, Beijing, China | |

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| **Diploma of College Studies** | Aug. 2011 - May 2013 |
| Pure and Applied Sciences, Marianopolis College, Montréal, QC | |
| Honour Rolls (maintained an average above 85% throughout the semesters) | |

**RELEVANT EXPERIENCE**

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| **Research Associate** | Oct. 2020 – present |
| University of Waterloo, Waterloo, ON, Canada | |
| * Redesigns parts using Design for Additive Manufacturing principles * Directs and supervises the writing of scientific articles * Generates new geometrical modeling tools | |
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| **Engineering Intern** | May 2017 – Dec. 2017 |
| Pratt&Whitney Canada, Longueuil, QC, Canada | |
| * Co-organized workshops where designers and supply chain employees met to look for redesign opportunities * Generated resources regarding suppliers of 3D printing equipment/training * Led meetings and supervised a team of designers * Ensured the completion of design projects | |

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| **Research Intern** | May 2014 – Aug. 2014 |
| McGill University, Montreal, QC, Canada | |
| * Assisted technicians in the manufacturing of samples for tensile tests for the design of a biodegradable cardiovascular stent * Realized tensile tests * Analyzed the mechanical properties of the different tests * Presented my work in the form of a poster to a broad audience | |

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| **VP External** | June 2015 – May 2018 |
| McGill Additive Manufacturing Students’ Society, McGill University, Montreal, QC, Canada | |
| * Searched for new sponsorship opportunities * Organized interdisciplinary seminars in which guest speakers from the industry and academia came to spread awareness on the benefits and opportunities linked to 3D printing * Collaborated with other associations to co-host events * Coordinated events’ logistics (space rental bookings, promotion through social networks and announcements, etc…) * Co-supervised design competitions and we were awarded “best engineering team” by the engineering undergraduate society | |

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| **Committee Member of the African Development Convention** | Nov. 2016 – Feb. 2017 |
| McGill African Students’ Society, McGill University, Montreal, QC, Canada | |
| * Developed my theme which I named “Revitalizing indigenous knowledge” in the hope of bringing awareness on the innovations throughout the African Continent * Researched potential speakers (scholars) by investigating my panel’s theme * Collaborated with my teammates to coordinate the logistics (space rental bookings, promotion through social networks and announcements, etc…) * Hosted the panelists * Moderated the panel | |

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| **Member** | Sept. 2013 – May 2015 |
| McGill Robotics, McGill University, Montreal, Qc. | |
| * Planned new robots features in weekly meetings * Searched for new sponsorship opportunities | |

**HONOURS AND AWARDS**

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| **Name** | **Amount** | **Year** |
| Second Runner up for the Rapid+TcT poster challenge | 250$ (USD) | 2019 |
| Graduate Research Studentships | 7500$/Semester | 2018 |
| UW Grad Scholarship | 1000$ | 2018 |
| Finalist of the CanadaMakes 3D Challenge | 1000$ | 2018 |
| MIAE funding for the trip to the International Paris Air Show | NA | 2017 |
| MIAE funding for the international summer school of Beihang University, Beijing, China | 2000$ | 2016 |
| NSERC Undergraduate Summer Research Award | 5625$ | 2014 |
| Recipient of the Jackie Robinson scholarship Award (for the contribution to the work done within the community) | 1000$ | 2013 |

**SKILLS**

**Software**: AutoCAD Inventor(basic), Solid Edge, Solid Works, Photoshop, Rhino 3D, Grasshopper 3D, Blender

**Programming languages**: C#, Fortran (basic), Java, Python, Matlab, C++, CSS, HTML

**Microsoft Office**: Word, Excel, PowerPoint

**Languages**: Fluent French, Fluent English, Spanish (basic)

**CONTRIBUTIONS AND STATEMENTS**

***Published contributions***

TBA

***Other contributions (not published)***

Nsiempba, K., Toyserkani, E. (2019) Predicting Defects of 3D Printed Lattice Structures: *Holistic Innovation in Additive Manufacturing Conference, 2019 edition* (MASc work – Poster Presentation)

Nsiempba, K., Toyserkani, E. (2019) Predicting Defects of 3D Printed Lattice Structures: *Holistic Innovation in Additive Manufacturing Conference, 2019 edition* (MASc work – Oral Presentation)

Nsiempba, K., Toyserkani, E. (2019) Predicting Defects of 3D Printed Lattice Structures: *2019 RAPID + TCT Conference* (MASc work – International – Poster presentation)