Ken M. Nsiempba

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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

QUALIFICATIONS

Master of Applied Science — Sept. 2018 - Ongoing
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

Bachelor of Mechanical Engineering — May 2018
McGill University, Montréal, QC
Cumulative GPA of 3.56/4.0 - May 2018

Diploma of College Studies — May 2013
Pure and Applied Sciences, Marianopolis College, Montréal, QC
Honour Rolls (maintained an average above 85% throughout the semesters)

RELEVANT EXPERIENCE

Engineering Intern — May 2017 – Dec. 2017
Pratt&Whitney Canada, Longueuil, Qc

- 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

Research Intern — May 2015 – Aug. 2015
Additive Design and Manufacturing Lab, McGill University, Montreal, Qc.

- Implemented algorithms for cellular structure manipulation
- Evaluated the manufacturability of my designed structures
- Built a working 3D printer (as a personal side project to become familiar with the technology)
- Collaborated with my teammates to integrate our components on a common platform (INTRALATTICE plug-in)
- Presented my work in the form of a poster to a broad audience

Research Intern — May 2014 – Aug. 2014
McGill University, Montreal, Qc.

- Assisted technicians in the manufacturing of samples for tensile tests for the design of a biodegradable cardiovascular stent
- Realized tensile tests
- Analysed the mechanical properties of the different tests
- Presented my work in the form of a poster to a broad audience

VP External June 2015 – May 2018

McGill Additive Manufacturing Students' Society, McGill University, Montreal, Qc.

- 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

Committee Member of the African Development Convention Nov. 2016 – Feb. 2017

McGill African Students' Society, McGill University, Montreal, Qc.

- Developed my own 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 panellists
- Moderated the panel

Member Sept. 2013 – May 2015

McGill Robotics, McGill University, Montreal, Qc.

- Planned new robots features in weekly meetings
- Searched for new sponsorship opportunities

CONTRIBUTIONS AND STATEMENTS

Articles under reviewing

Nsiempba, K., Wang, M. and Vlasea, M. (2019). Additive Manufacturing of Cellular Structures - A Review: *Elsevier, Journal of Manufacturing Processes*.

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)

SKILLS

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

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

Microsoft Office: Word, Excel, PowerPoint

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

HONOURS AND AWARDS

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 international summer school of Beihang University	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