EMAIL
niels.billen@gmail.com

MOBILE
+32 476 41 40 96

WEBSITE
nielsbillen.github.io

ADDRESS
Bretheistraat 80, bus 2
3600 Genk

NIELS BILLEN

I am currently a Ph.D candidate who is looking for a diverse and challenging job at an innovative company. I am a team player, but I am also capable of working on my own. I consider myself to be responsible, punctual and hardworking and I take great pride in my projects. Furthermore, I am eager to learn and I hope that through my job I have the opportunity to develop my skills even further.

EDUCATION

KU Leuven
2013 — present

PhD In ENGINEERING SCIENCE: COMPUTER SCIENCE
- **Topic:** Reducing the Noise in Illumination Algorithms
- **Promotor:** Philip Dutré
- **Funded by:** IWT (Institute agency for Innovation by Science and Technology)

KU Leuven
2011 — 2013

MASTER OF SCIENCE IN ENGINEERING — **Cum Laude** (76,17%)
- **Major:** Human-Computer Interaction
- **Minor:** Secure software
- **Thesis:** Stochastic Visibility in Rendering Algorithms using the Occlusion Map

KU Leuven
2008 — 2011

BACHELOR OF SCIENCE IN ENGINEERING — **Cum Laude** (69,74%)
- **Major:** Computer Science
- **Minor:** Electrical Engineering

PUBLICATIONS

COMPUTER GRAPHICS FORUM
July 2017

TEMPORAL COHERENCE FOR METROPOLIS LIGHT TRANSPORT
Joran Van de Woestijne, Roald Frederickx, Niels Billen and Philip Dutré
Eurographics Symposium on Rendering — Experimental Ideas & Implementations

COMPUTER GRAPHICS FORUM
July 2016

LINE SAMPLING FOR DIRECT ILLUMINATION
Niels Billen and Philip Dutré
Proceedings of the 27th Eurographics Symposium on Rendering

CW REPORT
July 2015

VISIBILITY ACCELERATION USING EFFICIENT RAY CLASSIFICATION
Niels Billen and Philip Dutré
CW Report 695

COMPUTER GRAPHICS FORUM
July 2015

EFFICIENT VISIBILITY HEURISTICS FOR KD-TREES USING THE RTSAH
Matthias Moulin, Niels Billen and Philip Dutré
Eurographics Symposium on Rendering — Experimental Ideas & Implementations

COMPUTER GRAPHICS FORUM
July 2014

PROBABILISTIC VISIBILITY EVALUATION USING GEOMETRY PROXIES
Niels Billen, Ares Lagae and Philip Dutré
Proceedings of the 25th Eurographics Symposium on Rendering

COMPUTER GRAPHICS FORUM
July 2013

PROBABILISTIC VISIBILITY EVALUATION FOR DIRECT ILLUMINATION
Niels Billen, Ares Lagae and Philip Dutré
Proceedings of the 24th Eurographics Symposium on Rendering

SKILLS

PROGRAMMING LANGUAGES
C++, Java, HTML5, Javascript, Matlab, Python, Bash

OPERATING SYSTEMS/TOOLS
Windows, Ubuntu, Git, Mercurial, SVN, Latex, Word, PowerPoint, Eclipse

PAST PROJECTS

REVISION
Ray Tracer

SILEN
Music Player

a ray tracer written from scratch, capable of rendering scenes with several kinds of effects (e.g. motion blur, depth of field ...)

extracurricular group project in which we wrote a cross platform music player written in Java using SWT and GStreamer.

REFERENCES

prof. dr. ir. Philip M. Dutré

Full Professor and Vice-Dean
Department of Computer Science, Faculty of Engineering Science, KU Leuven.

e-mail: philip.dutre@kuleuven.be
phone: +32 16 32 76 67