Résumé – Younes Hamdoud

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Education

BSc Computer Science, University of Amsterdam, Netherlands   September 2018 - July 2021
Grade: 9.1/10 (Cum laude)
Relevant courses: *Graphics and Game Technology*, *Linear Algebra*, *Concurrency and Parallel Programming*, *Introduction to Computer Vision*, *Digital Signal Processing*, *Data Structures*

Projects

Personal project, Deferred rendering engine   August – Present 2021
- Ongoing project where I implement both established and novel rendering techniques to build a fundamental understanding of graphics.
- Written in modern C++ using OpenGL and several open source libraries.
- Noteworthy features include: irradiance probe diffuse GI, PBR materials, CSM, SSR, SSAO, HDR lighting, bloom, and tone mapping.
- yhamdoud.github.io/projects/rendering-engine

Thesis, VR exposure therapy for treatment of selective mutism in children   March – July 2021
- Developed a VR application for supporting treatment of a rare disorder affecting a child's ability to speak in social situations, while working closely with researchers and behavioral therapists to meet their requirements.
- Designed a framework for systematically implementing an existing in vivo treatment plan, extended with intuitive interaction methods and a virtual teacher.
- Created a 3 part interactive experience using C# and the Unity engine and deployed it on a Quest 2 headset. Wrote a Python WebSocket server for facilitating communication through a JSON-based protocol with an online dashboard.
- yhamdoud.github.io/projects/sm-vret

Course project, The Hitchhiker's Guide to Accessibility   January 2021
- Together with 4 other students, created a Unity VR game exploring the hurdles faced by a wheelchair user when navigating public spaces.
- Over a 3 week time span, transformed an architectural mock-up of the yet to be constructed LAB42 university building into an interactive scene to evaluate its accessibility.
- Responsible for design, implementing the wheelchair interactions, and optimization.
- yhamdoud.github.io/projects/var4good

Skills

Programming:	C, C++, C#, Python, GLSL, HLSL
Libraries and APIs:	OpenGL, NumPy, SciPy, CUDA
Tools and platforms:	RenderDoc, Blender, Unity, git, CMake, Linux
Related interests:	Digital art and sculpting, visual storytelling, VR

Academic Honors

Young Talent Award   November 2019
Encouragement prize awarded by the Royal Holland Society of Sciences to first year students at Dutch universities who achieved the best grade average in their cohort. Article link.

Languages

Dutch, Native speaker
English, Full proficiency (C2 Cambridge English Qualification – Grade A)