

TUDOR BERECHET

PORTFOLIO

PROJECTS

BLOG

(<http://blog.deferredreality.com/>)

RESUMÉ



TOOLS, SKILLS, BUZZWORDS

Unity3D / C# / ECS
UE4, UE3 / C++
SteamVR, Valve Index, HTC Vive, OculusVR,
Quest/Go/Rift, MS HoloLens, MagicLeap

Git, Mercurial
Agile, Scrum, Trello, Taskworld, Harvest
Latex

Languages

C#
C++, C
CG, HLSL, GLSL
Python
Processing
Lua, Javascript, JQuery,
PHP

Technologies

.NET, Azure, WPF, Xamarin
OpenGL, DirectX, WebGL
Direct Compute / GPGPU,
Cuda, QT, GLUT
TCP/IP, UDP, WebSockets

Adobe

Photoshop
Premiere, AfterEffects

3D

Cinema4D,
Sculptris
Blender

EXPERIENCE AND STUDIES

5 YEARS OF INDUSTRY,
7 YEARS OF UNIVERSITY,
15 YEARS OF PROGRAMMING

Events, Camps, Misc

(2017 - 2018 - 2019 - Corona -)

Apart from various VR/XR, tech, & games events (AWE, Unite), in my off time I learn and write about deconstructionism, futurism & futures design, SDGs, and things that help, last, and can't do evil (ie game theory, ethics) ❤️

I take part in bootcamps, round table discussions, events and meetups e.g. in:

- Founders of Tomorrow (2019) Impact & ideation camp ([SDG](#)), nonprofit based on the [Danish Innovation Institute](#) ([foundersoftomorrow.com](#))
↳([un.org/sustainabledevelopment/sustainable-development-goals/](#))
↳([industriensfond.dk/english/about-the-foundation/](#))
- Tech Festival ([techfestival.co/](#))
- TechBBQ ([https://techbbq.dk/](#))
- DareDisrupt ([https://daredisrupt.com/](#))
- Ethereum and Web3 Cph ([https://www.meetup.com/Copenhagen-Ethereum-Meetup/](#))

-Related: I also love the Dungeons & Dragons scene, with its theatrical mental improv and exploratory qualities, and like using it for team building, self analysis, and to dig it up within the professional world.

Steam Early Access, VR (indie work)

(april 2020 - ongoing)

VR & Graphics stack developer on [Graffiti Bombing](#), V1 released in May 2020.

An upcoming high fidelity VR volumetric Graffiti Simulator with free roaming single player campaign, steam workshop integration, multiplayer. Ask for our Discord ❤️ ([https://store.steampowered.com/app/601440/Graffiti_Bombing/](#))

Unity3D 2019.2, multithreading, ECS, VR interactions, networking, data/texture/Lod streaming, DirectX11+ (for now), custom renderers, command buffers, raytracing, SDFs, volumetric data structures, clever projection for smooth uninterrupted lines etc.

Work (startup, part time + ↓)

(february 2020 - ongoing)

Software Engineer on [Prediagnose](#). Building and assembling tech stacks for secure handheld hardware bio-sampler sensors, app, and cloud data analysis & automated diagnosing. ([https://www.linkedin.com/company/prediagnose/](#))

NET, Xamarin.Forms, Autho tokens, MS Azure stack, Shared Access Signatures storage containers, databases, GDPR, PalmSens

- [TED Talk on the biotech](#) ❤️ ([https://youtu.be/mzmvHQyRVMc](#))

Work (full time, part time + ↑)

(february 2017 - ongoing)

VR Game Developer at [Khora VR](#) (games, simulations, healthcare, art, b2b productions, and DK's first VR arcade). ([khora-vr.com/](#))

Gameplay, Software, Tools, Graphics Programming. Early adoption for virtually every headset on the market.

Sample project videos:

- [VR Raytraced Compute Sculptor](#) ([youtu.be/pznTPQErlq](#))
- [Super optimized Exposure Therapy Streaming Platform for Oculus Go](#) ([https://youtu.be/hg3LTTokcc](#))

Indie Work

(↓ - december 2016)

UE4/C++ custom [raytracer](#) with prototype GPU physics for a personal/collab project. ([twitter.com/CarnegieLemon/status/809951848136404993](#))

Indie Work, VR

(september 2016 - ↑)

VR particle sculpting tool with fluid dynamics:

[deferredreality.com/?project-particles](#)
↳([deferredreality.com/?project-particles](#))

Work (full time)

(spring 2015 - summer 2016)

Software Developer at [UCS3D](#), Copenhagen. ([youtu.be/UcvJGpkkgylSOTq_3rgkQAqw](#))

Worked on 2 platforms for VR 3D architectural design validation in cityscapes generated from photogrammetry.

App Systems, City PCG pipeline, Custom Lighting Simulation, Point Cloud Data, VR headsets, Gameplay.

Publication:

(FG 2015)

Paper: [Procedural Generation of 3D Caves for Games on the GPU](#) ([julian.togelius.com/Mark2015Procedural.pdf](#))

Presented at [Foundations of Digital Games 2015](#) ([www.foundationsofdigitalgames.org/](#))

Voxels, Compute, Grammar System Structure, Distance Fields, Additive Noise

Work / Internship (full time)

(2013 - 2013)

Shipped two mobile / tablet titles. DADIU Productions (30 ECTS).

Danish Academy of Digital Interactive Entertainment, Copenhagen.

Masters

(2012 - 2014)

MSc. in Game Technology (120 ECTS). [IT University of Copenhagen](#), Denmark. ([https://en.itu.dk/](#))

e.g. Game Engines, Game Development, AI, Game Design, Concept Design, Data Mining, PCG, Graphics Programming, and a bunch of jams, VR, and Dungeons & Dragons :)

"Gap year" Masters

(2011 - 2012)

Took an inspiring break from hard science / CS, with an Industrial Design MFA

(60 ECTS) [Umeå Institute of Design](#), Sweden. (up with the northern lights) ([www.teknat.umu.se/english/news/cid273128](#))

Concept Design, Storytelling, Maker stuff (arduino, kinects, exhibit & party pieces)

e.g. Interaction Design, Service Design, Product Design, Color Theory, Visualisation Techniques & Storytelling, Ergonomics, Transportation Design, Art History

CPE

(2011)

Certificate of Proficiency in English, level C2. Cambridge ESOL Level 3 International.

Got an A (read: pretty much the toughest English language diploma)

Bachelors

(2008 - 2011)

BSc. in Computer Science (180 ECTS). [Al.Cuza University](#), Iași, Romania. ([http://www.uac.ro/](#))

e.g. Network Programming, Compilers, Assembly, Matlab, OOP, .NET, Databases, Graph / Search Algorithms, Artificial Intelligence, Web Technologies, Information Security, Software Engineering, Computer Graphics, Bioinformatics

Highschool

(2005 - 2008)

C and ActionScript

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