TUDOR BERECHET

P O R T F O L I O

PORTFOLIO
(deferredreality.com/)
BLOG
(blog.deferredreality.com/)

RESUMÉ

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CONTACT

LFG. Relocation possible.
I live/d in France, Spain, Denmark, Sweden, Romania.
You can contact me at:

TOOLS, SKILLS, BUZZWORDS

ECS,
Unity3D / DOTS, Burst,
UEs, UE4, UE3,
SteamVR, Valve Index, HTC Vive, OculusVR,
Quest/Go/Rift, MS HoloLens, MagicLeap.

Git, Docker, CI/CD.

Agile, Scrum,
Latex,
Figma,
Jira, Trello, Taskworld, Harvest.

Languages

C,
C#,
C++,
Rust.

SPIR-V, CG, HLSL, GLSL.

Python, Blender Python,
Lua, Javascript.

Processing,
php, Matlab.

Technologies

.NET, Azure, WPF, Xamarin.

Vulkan, wgpu, WebGPU, OpenGL,
DirectX,
Cuda, Direct Compute / GPGPU,
QT, GLUT.

Pytorch.

TCP/IP, UDP, WebSockets.

Adobe

Photoshop,
Premiere, AfterEffects.

3D

Blender, BPython,
Cinema4D,
Sculptris, zbrush.

EXPERIENCE AND STUDIES

10 YEARS OF INDUSTRY,
7 YEARS OF UNIVERSITY,
20 YEARS OF PROGRAMMING

Self-employed (full time) { july 2025 - }

Freelancing with/and developing independent ECS-oriented, open-source, royalty-free, cutting-edge poor-man's game & visualisation frameworks. (public XR version) ♥ ←(https://blog.deferredreality.com/openxr-vulkan-c++-gamedev-boilerplate/)

C++, Vulkan, OpenXR, Blender.

Work (full time) { april 2023 - may 2025 }

Working for Snoop Dogg. (Seniorly building at a French MMO). ←(https://www.youtube.com/channel/UCzvs17v0B-bxMmXLysTzhow)

ECS, DOTS, Engine, asset streaming & tools, terraforming & tools, gameplay behaviours & tools.

(Finishing up on-site @ Prediagnose (see below)) { january 2023 - march 2023 }

Work (full time) { october 2020 - november 2022 }

Senior Graphics Programmer at Cylindo (Chaosgroup (Vray, Enscape)). Automation of 3D / Web / XR pipeline for product visualization, catalogue, design validation. ←(https://www.cylindo.com)

C++, .SPIR-V, Python, web technologies (AWS, docker, three.js etc.), streaming, content generation, automation, integration & reusability, (game) engine plugins, post processing & grading etc.

Steam Early Access, VR (indie work, part time) { april 2020 - 2021 }

VR & Graphics stack developer on Graffiti Bombing. V1 in Steam beta.
A high fidelity VR volumetric Graffiti Simulator with only moderate amounts of too high ambitions. Ask for our Discord. ♥ ←(store.steampowered.com/app/561440/Graffiti_Bombing/)

Unity3D 2019.2, volumetric data structures & SDF raytracing, recordable lag-proof uninterrupted lines, ECS, VR interactions, networking-agnostic code, data/texture/LoD streaming, DirectX11+ (for now), custom renderers, command buffers.

Work (startup, part time + ↓) { 2020, 2022 - 2023 }

Software Engineer and R&D for Prediagnose. Building and assembling tech stacks for secure handheld hardware bio-sampler sensor, app, cloud data analysis & automated diagnosing of bacteria, COVID-19, pollutants. ←(https://www.prediagnose.com/)

MS Azure cloud stack, .NET, Xamarin.Forms, UWP, OAuth/Auth0, Shared Access Signatures storage containers, databases, GDPR, PalmSens.
- TED Talk on the biotech ♥ ←(https://youtu.be/mzmvHOYRVMc)

PCG Advisor, Branching Sickness (indie work) { summer - winter 2020 }

Invited to be a Procedural Content Generation advisor on Branching Sickness on incorporating my published paper. A Halo Flood fan game with a huge team of devs & volunteers. ←(https://twitter.com/SicknessGame) ←(julian.togelius.com/Mark2015Procedural.pdf)

Unity3D -> UE4, PCG, Voxels, Compute, Grammar System Structure, Distance Fields, Additive Noise.

Work (full time, part time + ↑) { february 2017 - september 2020 }

VR Game Developer at KhoraVR (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 Sculpter ←(youtu.be/p2nTPGEr1q0)
- Optimized Exposure Therapy Streaming Platform for Oculus Go ←(https://youtu.be/hg3L_TTokcc)

Indie Work { ↓ - december 2016 }

UE4/C++ custom raytracer with prototype GPU physics for a personal/collab project. ←(twitter.com/CarnegieLemon/status/80995184283604993)

Indie Work, VR { september 2016 - ↑ }

VR particle sculpting tool with fluid dynamics:
deferredreality.com/?project-particles

Work (full time) { spring 2015 - summer 2016 }

Software Developer at UCS3D, Copenhagen. ←(youtube.com/@UtopianCityScape/videos)
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: { FDG 2015 }

Paper: Procedural Generation of 3D Caves for Games on the GPU. ←(julian.togelius.com/Mark2015Procedural.pdf), (deferredreality.com/?project-gpgpu)
Presented at Foundations of Digital Games 2015. ←(foundationsofdigitalgames.org/)

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

Work / Internship (full time) (3rd semester of MSc ↓) { 2013 - 2013 }

Shipped two mobille / 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 }

A product-oriented break: an Industrial & Product Design MFA (60 ECTS). Umeå Institute of Design, Sweden. (up with the northern lights) ←(www.teknat.umu.se/english/news/.cid273128)
Product Design processes, Concept Design, Storytelling, Maker stuff (arduinos, 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 (proud - it's the toughest English test suite)

Bachelors { 2008 - 2011 }

BSc. in Computer Science (180 ECTS). A.I. Cuza University, Iaşi, Romania. ←(https://www.uaic.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

Events, Camps, Misc { 2016 - 2020 - Covid - : }

Apart from various VR/XR, product & tech, games, events (AWE, Unite, Gamescom), in my off time I learn, deconstruct, and ramble about futures design, sustainable things that help, last, and can't do evil ♥ (tech + game theory + ethics, and perhaps Web3).

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

- Akasha Hub Barcelona & Bucharest
- Speculative Futures← (https://www.futures.design/)
- Founders of Tomorrow (2019) alumni (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/)
- Web3 meetups & a bit of open source work.

I also ♥ the Dungeons & Dragons scene, with the space's exploratory improv qualities. I've used it for team building, self analysis, and just like to dig it up within the professional world.

↓ Download as PDF (printable)
←(deferredreality.com/baxdrop/TudorBerechetCVSection_Printable-from_personal_website_-_www.deferredreality.com.pdf)

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