TUDOR BERECHET

P O R T F O L I O

RESUMÉ

CONTACT

LFG. Relocation possible.
I currently live in Copenhagen, and you can contact me at:
this.tudor@gmail.com
deferredreality.com/
(https://www.youtube.com/user/thistudor/featured)
(https://www.linkedin.com/in/tudorberechet)
(https://github.com/tdbe)   (https://bitbucket.org/tdbe)
(https://www.deviantart.com/spectraljump)   (https://tdbe.itch.io/)
(Discord:Tudor#1083) (https://twitter.com/CarnegieLemon/lists)

TOOLS, SKILLS, BUZZWORDS

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

Git, Docker, CI/CD
Agile, Scrum, Trello, Taskworld, Harvest
Latex

Languages

C#
C++, C
CG, HLSL, GLSL
Python
Processing
Lua, Javascript,
Rust, php, Matlab

Technologies

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

Adobe

Photoshop
Premiere, AfterEffects

3D

Cinema4D,
Sculptris
Blender, BPython

EXPERIENCE AND STUDIES
**8 YEARS OF INDUSTRY,
7 YEARS OF UNIVERSITY,
18 YEARS OF PROGRAMMING**

Work (full time)   (ootober 2020 - november 2022)

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

Graphics programming stacks, web technologies, streaming,
post processing, content generation, automation, reusability,
game engines, grading software etc.

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

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

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 + ↓)   (february 2020 - ongoing)

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

.NET, Xamarin.Forms, Auth0 tokens, MS Azure stack, Shared
Access Signatures storage containers, databases, GDPR,
PalmSens.
- TED Talk on the biotech
(https://www.youtube.com/watch?v=mzmvHQYRVMc) ❤

PCG Advisor, Branching Sickness (indie work)

(summer - winter 2020)

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

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 Khora VR (http://khora-vr.com/) (games,
simulations, healthcare, art, b2b productions, and DK's first VR
arcade).

Gameplay, Software, Tools, Graphics Programming. Early
adoption for virtually every headset on the market.
Sample project videos:
- VR Raytraced Compute Sculpter
(https://www.youtube.com/watch?
v=p2nTPOErIgI&feature=youtu.be)
- Optimized Exposure Therapy Streaming Platform for
Oculus Go (https://youtu.be/h93L_TTokcc)

Indie Work (↓ - december 2016)

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

Indie Work, VR (september 2016 - ↑)

VR particle sculpting tool with fluid dynamics:

deferredreality.com/?project=particles (?project=particles)

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

Software Developer at UCS3D (https://www.youtube.com/channel/UCvJGpkkgyLSOTg_3r9KQAqw), Copenhagen.

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 (http://julian.togelius.com/Mark2015Procedural.pdf).

Presented at Foundations of Digital Games 2015 (http://www.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 (https://en.itu.dk/), Denmark.

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 (http://www.teknat.umu.se/english/news//.cid273128), Sweden. (up with the northern lights)

Product Design, 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 (read: pretty much the toughest English language test)

Bachelors (2008 - 2011)

BSc. in Computer Science (180 ECTS). A.I. Cuza University (http://www.uaic.ro/), Iași, Romania.

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 (2017 - 2018 - 2019 - Corona -)

Apart from various VR/XR, Web3, 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 (tech + game theory + ethics). ❤

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

- Speculative Futures (https://www.futures.design)
- Founders of Tomorrow (https://foundersoftomorrow.com/) (2019) Impact & Ideation camp (SDG (https://www.un.org/sustainabledevelopment/sustainable-

development-goals/)), nonprofit based on the <u>Danish Innovation Institute (https://www.industriensfond.dk/english/about-the-foundation)</u>.
- <u>Tech Festival (https://techfestival.co/)</u>
- <u>TechBBQ (https://techfestival.co/)</u>
- <u>DareDisrupt (https://daredisrupt.com/)</u>
- <u>Ethereum Cph (https://www.meetup.com/Copenhagen-Ethereum-Meetup/)</u> and Web3 meetups.

I also ❤ the Dungeons & Dragons scene, with the space's theatrical mental improv & exploratory qualities, + I use it for team building, self analysis, and to just like digging it up within the professional world.