# FROJECTS



# CONTACT

LFG. Relocation possible. I currently live in Copenhagen, and you can contact me at:

• this tudor @ G Mail Co例,

· this tude Proton Mail Com (inline) openPGP: public key (QR Code), fingerprint (QR Code)

• openPGP (e.g. OpenKeychain): fingerprint (QR Code), public key Keybase.io/Tudor\_/chat

# 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 7 YEARS OF INDUSTRY, 7 YEARS OF UNIVERSITY, 17 YEARS OF PROGRAMMING

←(https://www.cylindo.com)

Work (part time → full time) (october 2020 - ongoing)

Senior Graphics Programmer at Cylindo (Chaosgroup). 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) (april 2020 - ongoing)

VR & Graphics stack developer on 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. ♥ ←(https://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.

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)

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

Work (startup, part time + ↓ ) (february 2020 - ongoing)

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

Software Engineer on Prediagnose. Building and assembling tech stacks for

secure handheld hardware bio-sampler sensors, app, and cloud data analysis & automated diagnosing of bacteria, COVID-19, pollutants. ←(https://www.prediagnose.com/)

.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 - september 2020)

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 Sculpter ← (youtu.be/p2nTPQErIqI) - Optimized Exposure Therapy Streaming Platform for Oculus Go ←(https://youtu.be/hg3L\_TTokcc)

Indie Work (  $\downarrow$  - 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 -  $\uparrow$ )

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: (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. ←(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, 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

"Gap year" Masters (2011 - 2012)

Dungeons & Dragons :)

& party pieces).

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)  $\leftarrow$  (www.teknat.umu.se/english/news/.cid273128) Product Design, Concept Design, Storytelling, Maker stuff (arduinos, kinects, exhibit

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, Iași, Romania. ←(http://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 (2017 - 2018 - 2019 - Corona - )

Apart from various Web3 & DAO meetups, and 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 (tech + game theory + ethics). 🖤

- Speculative Futures←(www.futures.design/) - Founders of Tomorrow (2019) Impact & Ideation camp (SDG), nonprofit based on the Danish Innovation Institute. ← (foundersoftomorrow.com/)

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

←(un.org/sustainabledevelopment/sustainabledevelopment-goals/)  $\leftarrow$  (industriens fond.dk/english/about-the-

foundation) - Tech Festival ← (techfestival.co/) - TechBBQ←(https://techbbq.dk/)

- Ethereum Cph and Web3 & DAO meetups, scheming & consulting. ←(https://www.meetup.com/Copenhagen-Ethereum-Meetup/) 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.

↓ Download as PDF

 $\leftarrow (\texttt{http://www.deferredreality.com/boxdrop/TudorBerechetCVSection-}$ from\_personal\_website\_-\_www.deferredreality.com.pdf)

- DareDisrupt←(https://daredisrupt.com/)