THOMAS JOHN
Senior Software Developer

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Senior Full Stack Developer with over 20 years of professional experience delivering full-fledged **web, mobile, and desktop applications**.
I take projects from concept to deployment, with a focus on **technical architecture, development, user experience, and business alignment**.
I support and improve existing systems through **redesign, optimization, and debugging**, and **adapt them to meet evolving technical or business requirements**.

Technical strengths:
Vue.js, React, Unity, TypeScript, C#, Haxe, JavaScript, HTML/CSS, SQL, Node.js, Deno, Web3.js, Ethers.js
Adapt easily to Java, Python, Dart, and other object-oriented languages.
Also experienced with: Photoshop, Animate, Figma, Illustrator, Acid, Reason, SoundForge and many other creative softwares.

I've worked accross various industries including tech, gaming, creative agencies and business platforms; building tools, interactive applications and scalable systems tailored to end-user needs.

Feel free to reach out to discuss ideas, technology, creativity, AI, or new opportunities.

💼 EXPERIENCES

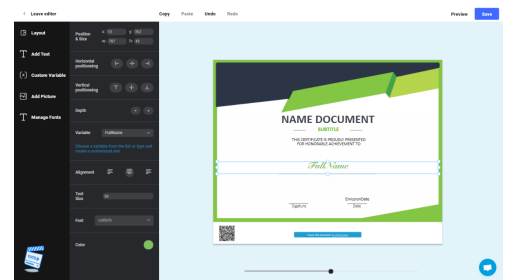### SmartCertificate
CVTrust - 2017 to 2025

- **VueJs 2, Vuex, Typescript, HTML, CSS, Javascript, Astro, Stylus, Photoshop, Figma, Illustrator**
- SmartCertificate is a platform that allows trusted people to send digital certificates that can be verified.
- They needed a new front-end developer to revamp their whole SmartCertificate platform with a new, sexier and more ergonomic interface. The goal was to broaden their target audience.
- They also needed someone with experience in back-end technologies, someone who understands clients, budget and business priorities. Basically, someone who has the capability to manage an entire project.
- I quickly got involved in the whole business and became what we can call now a Product Owner, on top of my day to day developer job.
- As a developer, I had the task to cut the monolithic c# platform that was SmartCertificate back then into smaller pieces that could be managed independently from each other.
  I first elaborated the ideal structure that I envisioned but very soon had to adapt to the very rigid one that the project had already been built on. Because of budget and time constraints, but also because of the very nature of what this platform brings and ensures to its clients: privacy and security.
- A totally independent API was developed by our back-end developer under my supervision and I developed the front-end application from the ground up using VueJs 2 and Typescript whenever possible.
- After 2 brand new versions of the platform, we consider the app to be in a very mature phase. Not much needs to be done anymore. It all works much better than before and needs less and less maintenance.
  A complete onboarding experience has been added to the tool, providing new clients with all the tools, tutorials and help they need to send certified documents to their recipients in just a few minutes.
- The app features a full template editor, written entirely in vue 2. Users can drag and drop texts and images as well as use custom variables in order to make their content dynamic.
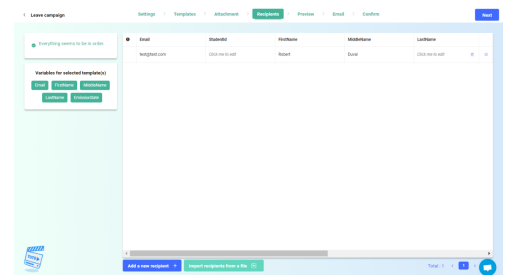
📁 PORTFOLIOS

Smart Certificate
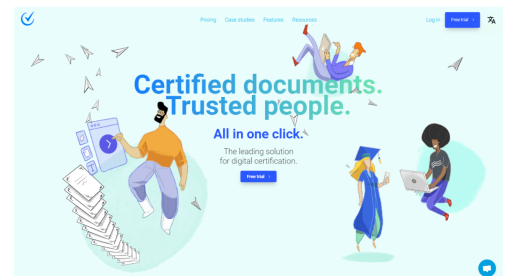
Smart Certificate: Template Editor

Smart Certificate: import your own data

- Users can import their own data using Excel and CSV files. A tool allows them to map their custom data to custom variables present in their own templates.

Blockchain & Smart Contract development (Solidity)
Myself - Since 2017

- **Solidity, HardHat, Truffle, Binance Smart Chain and any other solidity compatible blockchain, Node, Deno, Typescript, Web3.js, Ethers.js, VueJs 3, Pinia, HTML, CSS, Stylus**
- I started developing smart contracts on the Binance Smart Chain (Solidity) for myself. I had serveral ideas that I wanted to try to implement and see if it could work. Ideas that had sometimes a link to my then job (SmartCertificate) as we also store hashes of document on the blockchain.
- I explored the different toolsets at the time as well as some of the patterns that are used (such as the Diamon proxy pattern) as I really needed to be able to update a contract (the blockchain is known to be immutable)
- We never used any of what I experimented with because the blockchain at the time was still very inefficient and lacking many things that would make a technology usable for the common user.
- I used HardHat and Truffle. Mainly on the BSC blockchain for its very low transaction fees (at the time compared to ethereum)

Artificial Intelligence (ChatGPT, Llama 2, LlamaIndex, Midjourney, DALL·E, etc...)
Myself - Since 2023

- **LlamaIndex, Node, Deno, VueJs 3, Stylus, HTML, CSS, Typescript, ChatGPT**
- I started playing around with ChatGPT and Midjourney around a year ago. I quickly became fascinated by the possibilities offered by those AIs.
- They both evolved in quite interesting ways but still remain limited in various aspects.
- I started trying different LLMs to understand better the way they work and how they can be used.
- I started coding tools that would allow me to do certain tasks quicker.
- I learned to use LlamaIndex, a Data Framework for LLM Applications, and build a document parser (leveraging data segmentation and Embeddings) that I could use to quickly summarize and search trough them (using Deno for the back-end and Vue3 for the front)
- I am currently working on different personal projects that help me dig deeper into this fascinating world

Riftworl Heroes
Reed.be - 2017

- **Unity, C#**
- Took over a project in progress. I was mainly asked to build a strong base to let other developers and artists build the game on top of it.
- It consisted in building a system where each entity could be easily programmable (inside the Unity editor and within a constrained set of rules) and editable. "Everything" was an entity, the player, the animals, the spells, the cards,... everything.
- The game had to be playable against AI so I build the system around the same principles that were used to build Earthstone: a system that allows for very fast iterations of different possibilities within a certain context to find the best possible outcome. It was also a system that adapted well to networking
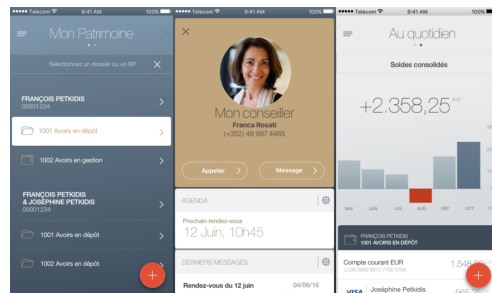
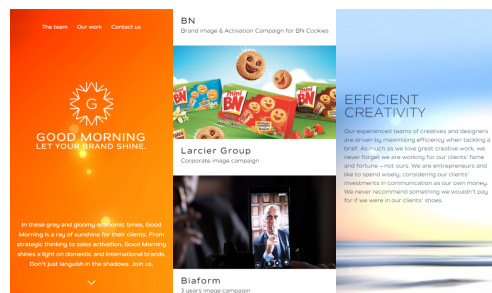## App Prototype (NDA)
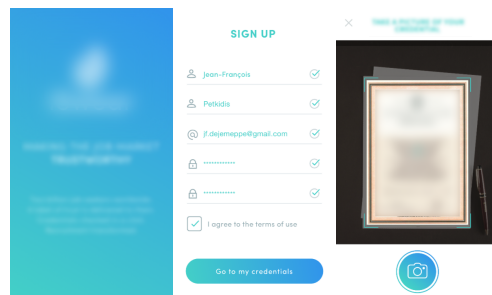
We Are Tennis Fans
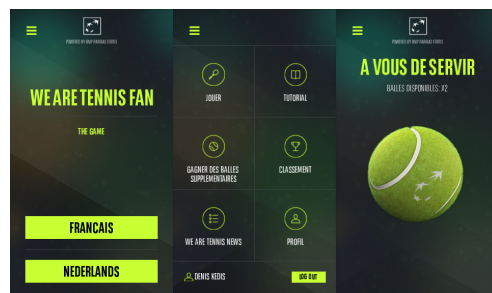
Ludus one

Banking App Prototype

H (Longines)

Good Mornig website

Web Developer & Framer @ 1MD (HTML, Javascript, CSS, CoffeeScript, Framer & Haxe)
1MD - 2016 to 2017

- After a good decade exploring Flash, ActionScript 3 and Stage3D to their limits, it was finally time to accept its fate and plunge into the world of HTML, CSS and Javascript.
- Development of H, a mobile friendly website for Longines using built-in tools (in Haxe) for animations and layout (on top of CSS).
- Development of the mobile friendly website for Agilytic. Using built-in tools (in Haxe) for animations and layout.
- Animation of the User Interface of a banking mobile app for a bank in Luxembourg using Framer.
- Development of numerous other smaller web projects.

ND2Dx: a very fast and optimized 2D GPU Accelerated game engine using flash Stage3D
Myself - 2011 to 2016

- ND2Dx is a very fast and optimized 2D GPU Accelerated game enging using Stage3D written in ActionScript 3. It leverages the GPU (and its shaders) to accelerate the rendering of the graphics and uses plenty of optimization techniques to get the best out of it.
- It powers the WorldGameMaker editor.
- It is extremely fast, way faster than Starling (Adobe)
- It features a full blown Display List hierarchy for 2D elements using a double linked list approach to achieve very fast traversal and modification of the list.
- Tinting, blendmodes, color transforms, pivot points, scale and size of 2D sprites
- Animated sprites
- Scenes
- 2D Camera
- Very optimized batching techniques to render as many objects on screen using optimized shader code
- Full mouse support with very fast event system using Signals
- Bitmap Fonts
- Fully integrated component system that has almost zero cost
- Full material system
- A 2.5 D rendering feature
- A complete animation system that is extremely versatile and fast
- A highly optimized code using the various ways the ActionScript3 VM was functionning to get the most out of it.
- Github link: https://github.com/NoRabbit/ND2Dx

WorldGameMaker
myself - 2011 to 2016 - Brussels - Belgium

- WorldGameMaker is a tool that I first created to allow our team at reed.be to build levels for a game we were developing for Sony Ericsson. The game was SoundQuest. I had the feeling the flash editor was not gonna be enough to do what we needed to do. On top of that, we wanted to use the new Stage3D technology (basically having access to the graphic card shaders).
  I needed an IDE that would allow me to create all sorts of animated things as well as having a basic physics system. First I tried building my own. It worked for some very small projects but I eventually switched to Nape, a professional and open source physics engine.
- Development of an entire IDE that leverages the functionnality and power of my Stage3D + ActionScript 3 engine: ND2Dx
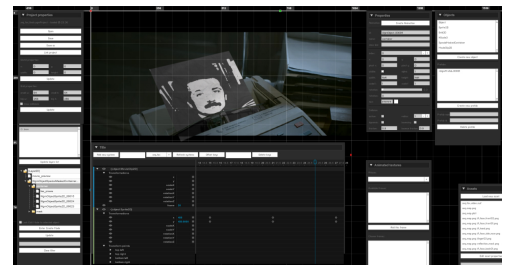- Component System

Agilytic

Total: promotional Game App

Ernest et Célestine Promotional App

Payback Time - development - very early version of WorldGameMaker in action

Screenshot of WorldGameMaker being used to develop PaybackTime

Flash Meta Games: metascore portal

ND2Dx on github

- Dynamic Loading of Action Script Code into the IDE
- Dynamic properties editor
- Customizable
- Run and Debug game inside IDE
- Publish game to multiple platforms using AIR
- Allows the creation of mobile and desktop Apps & Games
- Almost complete UI system
- Constantly evolving
- I create most of my games and apps with it

Memory Wizard : a memory game with physics
myself - October 2015 to 2016 - Brussels - Belgium

- Dynamic memory game for children using physics.
- Development of the graphic engine in Action Script 3 and Stage3D (ND2Dx)
- Creation of all graphic assets
- Development of the whole game in Action Script 3 with mobile in mind
- Using WorldGameMaker editor.

Endless Runner + Endless Jumper games in Unity3D & C#
Reed.be - July 2015 to 2015 - Freelancer - Brussels - Belgium

- Development of 2 games in Unity3D C#: a runner type of game and an endless jump type of game
- Integration within a more complex application also developed within Unity3D

Space Cropper 2 : sequel to Action-Arcade video game Space Cropper
myself - January 2015 to March 2015 - Brussels - Belgium

- Development in ActionScript 3
- Animations, special effect, sound design (soundtrack and effects), game mechanics
- Art based on lostgarden.com
- Noted 8/10 ("great") on FGL.com (1st monetization website for web games)
- Trailer: https://www.youtube.com/watch?v=PxiPpPC2lBg

We Are Tennis Fans: mobile game (IOS & Android) for BNP Paribas - Roland Garros
Reed.be - June 2014 to September 2014 - Freelancer - Bruxelles - Belgium

- Development of a crossplatform game for IOS and Android
- Flash ActionScript 3 + ANEs + Stage3D
- Using WorldGameMaker editor

Flash Meta Games: a flash game portal with metascore
Myself - 2013 to 2014

- Development of a Flash game portal in PHP / MySQL
- Customized version of Wordpress with original template
- Development of a software that allows you to scan the web in order to collect flash games as well as their meta data (score, comments, etc...)
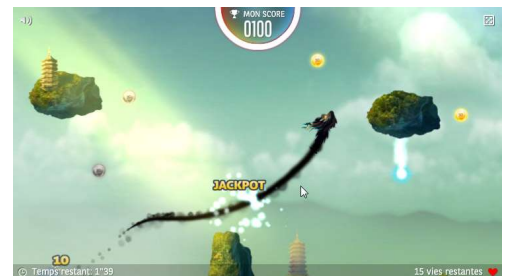
WorldGameMaker: SoundQuest

Mask Of War concept arts (made by Quentin Ghion)

SoundQuest : facebook game

Website

https://www.youtube.com/watch?v=H2ApW_YZZo8&ab_channel=ThaTrickaz

Ernest et Célestine Promotional App

Total: game contest for IOS (mobile)
Reed.be - July 2014 - Freelancer - bruxelles - Belgium

- Development of the game for IPad 3
- Flash ActionScript 3

Space Cropper : video game
Myself - January 2014 to April 2014 - Bruxelles - Belgium

- Development of a video game in the style of Qix, Xonix and Volfied with new game mechanics and graphics.
- Noted 8/10 on FGL.com (1st monetization website for web games)
- Very good comments on Newgrounds.com, one of the biggest game portals on the web (http://www.newgrounds.com/projects/games/790899)
- Flash ActionScript 3
- Animations, special effects, sound design.
- Art based on lostgarden.com

Mask Of War: multiplayer/crossplatform game prototype developed in C# with Unity3D
aucune - August 2013 to November 2013 - Freelancer - Bruxelles - Belgium

- Development of the entire game mechanics in C# with Unity3D
- Development of client side (game logic, interactions, etc...)
- Development of the server side (game logic, multiplayer, etc...)

BNP Paribas Fortis - Payback Time: promotional flash website
Reed.be - 2013

- Development of the interactive video using Flash Stage3D and ActionScript3.
- The core idea is the same as for the Prototype. Overlay personalized user images on top of a trailer.
  This one was a bit trickier though as I needed to use complex masking techniques that needed to run at 30 fps in high quality mode.
- Using WorldGameMaker editor.

Orange - Roland Garros: promotional web game
Uzful - March 2013 to May 2013 - Freelancer - Paris - France
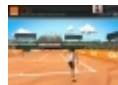
- Development of the Flash game on Facebook and interactive terminal present at Roland Garros
- Flash ActionScript 3
- Whole game including animations, transitions, content and special effects
- Using NodeJs on the backend for game scoring and other verifications

Ernest & Celestine (the movie): promotional mobile application for IOS and Android
Reed.be - December 2012 to January 2013 - Freelancer - Bruxelles - Belgium

- Development of a crossplatform application for Android and IOS
- Developed in Flash ActionScript3 + Stage3D
- Using WorldGameMaker editor

Memory Wizard: challenges

Space Cropper 2 game play

Youtube trailer below

Website

https://www.youtube.com/watch?v=PxiPpPC2lBg

Le Monde Déjanté de Sony Ericsson : facebook game

Jacques Dutronc: flash website

SoundQuest: social video game for Sony Ericsson

Reed.be - October 2011 to March 2012 - Freelancer - Bruxelles - Belgium

- Development of a social video game on Facebook (2d engine using Stage3D, level editor, effects, collision system, etc...)
- Developed in Flash ActionScript3 + Stage3D
- Using WorldGameMaker editor (this is the project that started the development of it)

Le Monde Déjanté De Sony Ericsson: social video game on facebook

Uzful - January 2011 to June 2011 - Freelancer - Paris - France

- Development of a flash video game (2d engine, logic/mechanics, etc...)
- Developed in Flash ActionScript3

The Prototype: promotional website with first ever interactive ad using Facebook for an Activision game

1MD - January 2009 to March 2009 - Freelancer - Bruxelles - Belgium

- Development of the promotional website for a blockbuster video game called Prototype, by Activision.
- The idea was to allow people to connect to the website using their facebook account. The facebook connect feature had just made its appearance. We then integrated people's data (information & pictures) right into the video game trailer. This was probably the first time ever such a thing was being done.
  The website got international attention. Big brands such as Microsoft US contacted us.
- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects

Jacques Dutronc: flash web site

1MD - December 2009 to January 2010 - Freelancer - Bruxelles - Belgium

- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects

Fanta: Less Serious

Reed.be - April 2010 to June 2010 - Freelancer - Bruxelles - Belgium

- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects

Blue Your Friends: promotional flash website for VW + interactive ad

1MD - February 2010 to April 2010 - Freelancer - Bruxelles - Belgium

- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects
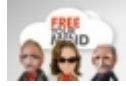
FearTracker: promotional flash website for VW
1MD - April 2009 to May 2009 - Freelancer - Bruxelles - Belgium

- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects

FreeYourWorld: promotional flash website for KIA
1MD - November 2008 to January 2009 - Freelancer - Bruxelles - Belgium

- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects

Samsung 3D TV: promotional flash website
Reed.be - May 2010 to June 2010 - Freelancer - Bruxelles - Belgium

- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects

Love Condom: provocative promotional flash website for a condom brand
1MD - February 2009 - Freelancer - Bruxelles - Belgium

- Flash ActionScript 3
- Whole website including animations, transitions, content and special effects

Professional Flash Developer for Emakina
Emakina - June 2008 to November 2008 - Full-time - Bruxelles - Belgium

Flash developer (ActionScrip3, FlexSDK, ...)

Matrix Fall 3D: matrix screensaver in 3D
personnel - February 2004 to March 2004 - Bruxelles - Belgium

- Development of a matrix screensaver in 3D
- OpenSource project developed in VisualBasic 6 at the time. It received many awards, notably on Planet Source Code.com.

Other professional experiences
multiples - June 2004 to December 2005 - Freelancer - Bruxelles - Belgium

- Various projects for Digi-Work.be
- Development of the dynamic side of the Bruylant Group website
- Realization of the entire Benoît Cerexhe (minister in Bruxelles) personal website
- 3D video for CIRB (irisnet)

📋 SKILLS

Platforms

- Web (Flash AS3, Stage3D / Unity3D C# / HTML & JS / Vue / React))

- IOS (Adobe Air / Unity3D C# / Electron)
- Android (Adobe Air / Unity3D C# / Electron)
- Desktop (Adobe Air, Stage3D / Unity3D C#, Electron, Node, Deno, Haxe)

Development & Art/Visual skills

- Typescript ★★★★☆
- Vue 2 & 3 ★★★★☆
- HTML / Javascript / CSS / XML ★★★★☆
- React ★★★☆☆
- C# ★★★★☆
- Haxe ★★★★☆
- NodeJs ★★★★☆
- Deno ★★★★☆
- ChatGPT
- Llama Index
- OpenAI API
- PHP / MySQL ★★★☆☆
- Midjourney
- JQuery ★★★★☆
- Flash ActionScript 3 / Flex SDK ★★★★☆
- Acid ★★★★☆
- SoundForge ★★★★☆
- After Effects ★★★☆☆
- C++ ★★☆☆☆
- Photoshop ★★★★☆

Languages

- French: native
- English: fluent

◢ INTERESTS

Cinema

I have always been fascinated by movies ever since I saw Star Wars. I saw the making of it on video when I was probably 9 years old.
Since then, I keep reading about it, I watch behind the scenes, send emails to directors whose films moved me (they answer sometimes :)) and write down ideas.

Travel

In 2005, I left with my backpack for two years and a half. I worked in farms and travelled for a year in Australia and then took a plane to Singapore, not really knowing where I was going. I didn't have a plan, nor a place to stay.
From there, and during a year and a half, I made my way through Malaysia, Thailand, Cambodia, Vietnam, Laos, Myanmar (Burma), China, Thibet, Nepal and India.
Since then, I try to leave once or twice a year for just a couple of weeks.
I like meeting new people, hearing their stories, telling them mines.
Meeting people that generally travel alone is a very peculiar experience that nourishes me deeply.

Music

I play piano since I'm little. Mostly self-educated, I like to play personal things. I compose from time to time, whether directly on my piano or via my computer. I was part of a small band several years ago. We went on radio.
I also play guitar, a bit.

Sports

I need exercise even if I don't do as much as I want. I do yoga almost every day, alone and with a teacher. In my youth, I played basketball and football. I also did kung-fu for 6 years. I plan to rehabilitate them in the near future, step by step.

The arts

I draw what crosses my mind: game ideas, characters, project, all sorts of concepts but mainly oriented towards games and apps.
I never really pushed that part of me as I did with programming or even maybe music but I think that this side of me brings a lot to everything I undertake.

🎓 EDUCATION

Ecriture Multimédia
ISFSC
September 2001 to June 2004

Development, design, project management, traineeships, ...
Left with Distinction and Great Distinction for the "end of studies" work.