

Maximilian Herz

MSc Computer Science with over 20 years of programming experience

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Work experience

Freelancer/GameDev — *Working on my own computer game*

2020 - Now

Private project work and work on a computer game with the aim of founding an indie games company.

Fraunhofer IGD, Darmstadt — *Scientific Assistant*

2016 - 2020

Employee at Fraunhofer IGD in the VCST department.

Working on a browser-enabled CAD viewer.

Co-project manager on a VR/AR project with a large car manufacturer.

Programming of an automated test system.

Lecturer at the TU on the subject of X3DOM and Scene Graphs.

Education

TU Darmstadt — *Master of Science in Informatik*

2013 - 2016

Successful master's degree in computer science, with a focus on business administration and specialization in computer graphics.

Hiwi job at Fraunhofer IGD in the VCST department.

JGU Mainz — *Bachelor of Science Informatik*

2007 - 2012

Successful bachelor's degree.

Hiwi job as a teacher for Java.

Skills

Full Stack Web Development

Android Development

Game Development

Unity/C#

Java/Kotlin/Scala

Javascript/Typescript/Nodejs

C/C++

Python

databases

Languages

German: mother tongue

English: fluently

Relevant work

1997 - First text adventure in QBasic

2000 - First 3D Engine in Turbo Pascal and Assembler

2004 - 3D Engine in Delphi with OpenGL

2007 - 3D demo for Breakpoint 2007 on Nintendo DS in C

2011 - 3D Engine for Android in Java with OpenGL ES (multiple games, apps and live wallpapers)

2012 - Bachelor Thesis (JGU Mainz) - "Pattern recognition in time series using dynamic programming algorithms on GPUs" (CUDA, C++)

2016 - Master Thesis (TU Darmstadt) - „G-Buffer streaming for Remote Rendering Web Applications“ (C++, Javascript, Compression Algorithms)

2016 to 2020:

- Programmer/researcher at Fraunhofer IGD
- 4 years frontend development with Typescript
- Co-project management for a VR/AR application at a large automotive company
- Fraunhofer booth at the IAA 2019
- Lectures held (about Scene Graphs and X3Dom)
- Test system for our web application (WebVis) with Javascript and Selenium

2023 - First game release as a solo indie game developer using C# and Unity

Additional experience in the areas of machine learning, IT security, full stack web development, Linux administration and DevOps

Other projects

2017-2018 - "bummel.online" shopping web application (MEAN Stack, Gitlab CI, Docker, Server Administration)

2022 - "Brain Extension" Mobile Application in Kotlin

2023 - Full Stack Web Framework for an AI Web Application (OpenAPI/Swagger, SpringBoot, Angular, Docker, Python)

About me

When I was a kid, I started teaching myself QBasic to create my own computer games. I fell in love with programming straight away and over time I learned many other languages such as Assembler, Turbo Pascal, Delphi, PHP, Javascript, Typescript, Java, Scala, Kotlin, C/C++/C#, Python, Lisp, SML and Prolog. I have a master's degree in computer science from TU Darmstadt, specializing in 3D graphics.

My passion is to create any kind of interactive applications, such as computer games, mobile apps, bots and web apps:

- I've written several 3D engines myself in different programming languages, but mainly use Unity for game development these days.
- I like web technologies and the MEAN stack. However, over the years I have worked with almost all popular front and backend technologies (e.g. Vue, Ionic, React, Flutter, PHP, Scala, Python, Spring) and with various databases.
- I love automating things and writing bots and web scrapers or test systems using Selenium or Puppeteer. I also have a passion for IT security and a hobby-moderate interest in all things "hacking/pentesting".

Before I offered my skills as a freelancer, I worked as an IT researcher at Fraunhofer IGD. I also gave lectures on computer graphics and related topics at the TU Darmstadt and taught the students how to program in Java.

Key Skills

- **Full-Stack & Frontend Development:**
JavaScript, TypeScript, Vue, Ionic, React, Angular, Node.js, Spring, PHP, Python, SQL, MongoDB, HTML, CSS, Scala
- **Video Game Development:**
C, C++, C#, Unity, Java, Typescript, Image Compression, 3D Graphics, Cuda
- **Android Development:**
Java, Kotlin, Flutter
- **Tools:**
Git, Docker, Databases, NodeJS, REST API Design...

How to reach me:

I like to help with development tasks and demanding IT projects. If you would like to find out more about my current availability and to discuss a potential collaboration, please email maxpherz@gmail.com or visit my home page www.thegamingvan.net. I look forward to hearing from you!