MARC ZAKU

BERLIN – STOCKHOLM

- **PROFESSIONAL SINCE 2013**
- **HOBBYIST SINCE 2004**

PERSONAL PROFILE

A passionate software engineer with hands–on experience in all layers of software development. This includes hiring, leadership, consulting, lecturing, web, mobile, frontend and backend.

I bring a profound interest in and understanding of clean code, architecture, CI, ECS, code generation and performance, functional and integration testing.

AREAS OF EXPERTISE

- Unity 3.4→2023.1
- C# 3.0→15
- C++98→20
- Unreal Engine 3→4
- Python, .NET, JavaScript, TypeScript, VueJS, MongoDB, SQL, NodeJS, ECS, BrightScript
- Code Analysis, Code Generation
- Workflows, Processes, CI, TDD
- Leadership, HR, Project Management, Agile, Automation
- Backend, Databases, Hosting, Docker
- Google Play Store, Steam, App Store, Roku, Web

OTHER SKILLS

- Collaboration with clients and stakeholders
- Improving work culture
- Improving team efficiency
- Compromising business needs and code requirements

CONTACT ME

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WORK EXPERIENCE

ENGINEERING MANAGER (FULL–TIME)

OD–OS GmbH, Berlin | Apr 2024 – Present
- Leads the software team in technological, personnel and strategic matters
- Sets up development environment for a novel medical device (CI/CD, Testing Suite, Linux Dev Containers, Cmake/C++ Build Orchestration, Documentation)
- Sets up a fully integrated build environment spanning cross–platform projects using Python, C++, C and .NET
- Sets up architecture for an NVIDIA Jetson based image–capturing and processing software applying CUDA GPU–optimization and C++ 20
- Active up–skilling of the team in both modern C++ and C# as well as TDD

C++ 20 · CMake· CUDA · C# 11 · Python · Linux · NVIDIA Jetson · GitHub Workflows · GoogleTest · NUnit

REGIONAL ORGANISER, SCANDINAVIA (VOLUNTEER)

Global Game Jam, Scandinavia | Nov 2024 – Present
- Previously: Site Organiser, Stockholm since Nov 2020
- Interviews, Guides and Approves Sites in Scandinavia

LECTURER (FREELANCE)

Futuregames, Stockholm | Sep 2023 – Apr 2024 (8 mos)
- Lectured the courses "Mobile Game Development" and "Design Patterns" for over 60 students across Sweden
- Prepared an interactive course consisting of group project work, case–study assignments, slides and additional resources

Unity · C# 11 · C++ 20 · Design Patterns

SENIOR SOFTWARE ENGINEER (FREELANCE)

Wonderz GmbH, Berlin | Dec 2019 – Jan 2024 (4 yrs 2 mos)
- Implemented the Unity–side SDK for a distribution platform for video and game content across iOS, Android, Kindle Fire, Roku TV, Apple TV, Android TV and Web
- Developed game templates in Unity that allow no–code content updates through downloadable content bundles
- Took charge of the Roku client development from early planning until release to add a new market potential of 73 million users. Acquired BrightScript and SceneGraph–framework knowledge along the way

Unity 2019 · C# · Asset Bundles · GitHub · Roku · BrightScript · SceneGraph · Jira

HEAD OF ENGINEERING (FREELANCE)

Forsbergs Skola AB, Stockholm | Sep 2020 – Mar 2024 (3 yrs 7 mos)
- Established to this day, the largest stream of income, by defining the curriculum of multiple new education programs for an established privately owned vocational school that is famous for having hosted Sweden's Crown Prince
- Integrated tools and processes for a scaling number of students and courses
- Implemented a professional hybrid learning culture utilizing modern GitHub workflows as well as Live-Streaming and On-Demand course access
- Lectured, mentored and examined the students from start to job/internship
- Achieved the rank of Certified GitHub Campus Advisor

Unity 2021 · C# 10 · C++ 20 · Python · OpenGL · GitHub · GitHub Classroom · Jira

CHIEF TECHNOLOGY OFFICER (FULL-TIME)

Growify GmbH, Berlin | Feb 2021 – Apr 2023 (2 yrs 3 mos)
- Established scalable workflows and processes for an upsizing team of developers for Assecor GmbH's promising start-up company
- Helped identify the product's customer values and reshaped the Company's vision, mission and product roadmap for Series-A and beyond
- Recruited and led a team of developers with a focus on personal development, agile mindset, proactive collaboration and ownership
- Steered the software towards AI-powered tools using OpenAI's API

OpenAI · ASP.NET Core 6 · C# · Azure SQL · TypeScript · Angular · Azure Cloud · Jira · NUnit · Jest

SENIOR SOFTWARE ENGINEERING CONSULTANT (FREELANCE)

Volkswagen AG, Wolfsburg | Jun 2021 – Oct (5 mos, full delivery)
- Helped establish a modern Unity Technology Stack
- Guided the development of multiple components

Unity 2020 · C# 8 · Entitas ECS · Roslyn Code Generation

CHIEF TECHNOLOGY OFFICER & CO-FOUNDER (FULL-TIME)

Storm Chaser UG, Berlin | May 2016 – Feb 2021 (4 yrs 10 mos)
- Led the development of Survival City, a mobile strategy game, from early prototype past global release to over 2 million players
- Managed the product's tech, analytics, customer requests and agile workflows
- Designed and guided Code Generator workflows and ECS-based architecture of the software's every single component, which still allows a small team of developers to develop stable new features rapidly
- Set up a cloud-based backend for cross-platform authentication, save games, cheat protection, purchase validation, asset bundle hosting and multiplayer features
- Recruited and led a total of 10 developers

Unity 2020 · C# 8 · Python · Entitas · Amazon GS · AWS · MongoDB · TypeScript · Jenkins · AssetBundles · Unity IAP · Apple Subscriptions · WebSockets · PlayMaker

CONSULTANT & SENIOR SOFTWARE ENGINEER (FREELANCE)

RA-Micro Software AG, Berlin | Sep 2019 – May 2020 (9 mos, covid-shutdown)
- Led an upskilling workshop for the entire engineering department which led to an offer to further consult the company
- Consulted software refactorings and implementation of new technologies in Germany's leading law firm software solution
- Advised developers regarding test-driven development, modern code and architecture to enable an updated technology stack
- Delivered two new software modules to over 70.000 clients

ASP.NET Core 3.1 · C# 8 · CouchDB · Vue.js · TypeScript · xUnit

LECTURER (FREELANCE)

Games Academy | Mar 2016 – Apr 2020 (4 yrs 2 mos)
• Taught courses in Software Design, Software Architecture and Unit Testing
Unity · C#

UNITY DEVELOPER (FREELANCE)

Bosch SoftTec GmbH | Aug 2016 – Jan 2017 (6 mos, full delivery)
• Implemented a Dual–Screen interactive technology demo for international
  exhibitions
Unity 5 · C# 6 · Dual Screen

UNITY DEVELOPER (FREELANCE)

Stainless Games Ltd. | May 2015 – Mar 2016 (11 mos, full delivery)
• Set up and optimized asynchronous UI and UI State workflows
• Coordinated integration of highly–demanding visuals for the client
Unity 5 · C# 6 · FSM · AssetBundles

PROTOTYPE DEVELOPER (FREELANCE)

Thoughtfish UG | Dec 2014 – My 2015 (6 mos, full delivery)
• Prototyped the backend, client SDK and visualization for a location–based
  game that is context–aware of real–world data
• My work laid the foundation for the company's most successful product,
  COALA Engine, empowering
Unity 4 · C# 3 · OpenStreetMap · RestAPIs · C++

UNITY FRONTEND DEVELOPER (FREELANCE)

Amazon Game Studios | Sep 2013 – Dec 2014 (1 yr 4 mos, full delivery)
• Built complex, fully animated 2D and 3D UIs for skill trees, inventory and shop for
  Hero Defense, a truly cross–platform Action–TD for mobile and PC
• Took full responsibility for essential features such as daily challenges, save–
  game management, an inventory system, formula parsing and camera controls
Unity 3 · C# 2 · NGUI · PlayMaker

WORKING STUDENT: GAME DEVELOPER – UI (PART–TIME)

Bubo Games | Apr 2013 – Sep 2013 (6 mos, full delivery)
• Developed, alongside my studies, most of the gameplay and UI logic for the indie
  puzzle game LabRATory, achieving 250.000 downloads on iOS & Android
Corona SDK · LUA

OTHER CLIENTS

- **CHANGEMAKER EDUCATIONS AB**
  - Lecturer: Design Patterns, Mobile Game Development
- **PROMOTION SOFTWARE GMBH**
  - C++ Developer: Emergency Simulator (Proprietary Engine)
- **PAINDEVS**
  - C# Developer: Flight simulator (Unity)
- **HAPPY TUESDAY GMBH**
- **FRANKFURT UNIVERSITY OF APPLIED SCIENCES**
- **STREETGRIOT MEDIENPÄDAGOGIK E.V.**
- **BILDUNGSSTÄTTE ANNE FRANK**
- **LEETVISION**
- **HARDSCORE GAMES**

EDUCATION

CERTIFIED GAME PROGRAMMER

Games Academy Berlin | 2011 – 2013
- Acquired a Scholarship for my work in Puzzle–Solving Algorithms
- Valedictorian with a score of 95%
- Elected as Exhibitor / Representative at Conferences and Events such as Quo Vadis (2x), Gamescom (2x), IFA (1x) and Global Game Jam (2)

ABITUR (A–LEVELS)

Gymnasium Zitadelle Jülich | 2008 – 2011
- Specialized in Computer Science, Mathematics and Biology
- Member of the Python and Chess Club
- Term Paper in Sudoku Solving Algorithms (Highest Possible Grade)