# Maximilian Stürzl

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# Profile

I am a game programmer and level designer, located in Frankfurt am Main, Germany.

# **Employment History**

Sixteen Tons Entertainment, Tübingen (February 2019 to Present) Lead Programmer,

UI, Gameplay, Tools, Backend and Systems programming for EMERGENCY and EMERGENCY HQ.

- *UI Programming*: Worked on most of the UI in EMERGENCY including layout, shaders, optimization, animations (Blueprint and code based) mostly in C++ using both UMG and Slate but also in Blueprint, as well as UI scripting for EMERGENCY HQ
- *Gameplay Programming*: Gameplay programming in Unreal Engine 5 in C++ (mainly) and Blueprints (when needed)
- *System Programming*: Designed and implemented systems that interact with each other on a game wide level
- *Tools Programming*: C++ based tool development both in UnrealEd and in the game itself as well as backend and code generation tools outside of the game (C#/.Net). Also worked on improvements on the testing tools used in EMERGENCY HQ and some tools to fetch and reset data for the game
- *Backend development*: Worked and managed a lot of the backend for EMERGENCY using technologies like Microsofts PlayFab and Azure
- *Multiplatform development*: Worked on multiplatform features in both EMERGENCY and EMERGENCY HQ, including frontend-backend communication, authentication, user-to-user interaction, in-app-purchases, multiplayer and backend

# GearEight Games, Schwetzingen (2017 to 2022)

# Co-Founder and Programmer,

Founded the company and released the game *DRAG* mid 2017 for Android and January 2018 for iOS.

- Programming: Technical Director and Programmer in a 2-guys Team
- *Tools Programming*: Wrote level editors and management tools, as well as multiple plugins for Unity, including a localizer
- Game Design: Game Design and management role for all projects
- Co-Founder

# SRH Hochschule Heidelberg, Heidelberg (May 2016 to October 2018) Lecturer,

Game Programming (October 2016 to December 2016, June 2017 to September 2017, April 2018 to October 2018)

- *C/C*++: Functional, procedural and object oriented programming (C++), introduction to programming as a concept, interaction between hardware and software
- *C#*: Programming patterns, JIT languages, algorithms
- SFML, SDL: Frameworks for visuals and audio (creating a game in C++)
- MonoGame: Framework for visuals and audio (creating a game as a team in C#)

## Tutor,

Game Programming (May 2016 to July 2016, April 2017 to May 2017)

- C/C++, C#: Teaching and repeating topics from lectures, training for exams
- XNA: Support for the creation of a game

#### Tutor,

Game Engines and Scripting (January 2017 to February 2017)

- *Teaching*: Workflow of game engines, importers and common editors. Post effects and shader pipeline in game engines
- *Supervising*: Helping students debugging and solving problems in the engine. Help in decision making about workflows

## upjers GmbH, Bamberg (April 2015 to September 2015)

#### Game Design Internship,

Game Development (Mobile)

- *Game Design*: Worked on the game design of *Color it up!* and *Glowing Darkness*, as well as some unreleased titles.
- Level Design: Worked on the level design of *Glowing Darkness* and was in a leading position for *Color it up*!.
- *Game Concepts/Game Design Documents*: Wrote concepts and documents for unreleased titles.
- Tools Programming: Wrote and/or extended the level editors for Color it up!, Glowing Darkness and unreleased titles.
- Sound Design: Worked on the sound design for Glowing Darkness.
- Content Creation: Created and validated content for Color it up!, Glowing Darkness, upjers Quiz and unreleased titles.

# Deck 13 Interactive, Frankfurt am Main (June 2011 to July 2011)

## QA Internship (Student),

Game Development (PC, Console)

• Quality Assurance: Stress testing the game Tiger and Chicken

# Education

M.Sc. Applied Computer Science, SRH Hochschule Heidelberg, Heidelberg (2016 - 2018)

**B.Sc. Virtual Reality - Game Development**, SRH Hochschule Heidelberg, Heidelberg (2013 - 2016)

Abitur, Hohe Landesschule, Hanau ( - 2013)

#### Languages

- German native speaker
- English fluent

# **Technical Experience**

- Programming Languages: C/C++, C#, Java, ECMAScript (JavaScript), php, Lua
- Game Engines and Frameworks: Unreal Engine 5, Unity, Source SDK, XNA/MonoGame, .Net, SDL, SFML
- IDEs: Visual Studio, Visual Studio Code, Visual Studio (Mac), Eclipse, NetBeans
- Artistic Tools: Blender, Maya, Photoshop, Illustrator, Audacity, Vegas Pro
- Web Development: HTML5, CSS3, jQuery, AngularJS
- Databases: SQL (MySQL), Azure Tables/Cosmos DB, Redis, MongoDB
- Version Control: git, SVN
- **EDP**: MS Office (Word, Excel, PowerPoint, OneNote, Access, Visio, Project), VBA, Open Office, Libre Office

# **Shipped Titles**

- EMERGENCY Sixteen Tons Entertainment PC 2023
- EMERGENCY HQ Sixteen Tons Entertainment iOS/Android/Switch
- DRAG GearEight Games iOS/Android 2017
- **Color it up!** Upjers GmbH iOS/Android 2015
- Glowing Darkness Upjers GmbH iOS/Android 2015

# **Student Projects**

- **Game Loop** Visual Scripting Tool for Unity with focus on card games Master Thesis 2018
- Slartibartfast Texture generation tool for terrestric planets Bachelor Thesis 2016
- Fallout Board Game Writer, Artist, System Design 2017
- Far Cry Board Game Game Design, Level Design, System Design 2015
- Alone in the Dark Local Multiplayer Tower Defense in C#/XNA Programming, System Design, Level Design 2014
- Digital Novel First C++ Project 2014
- Dozentopolis Primitive Flight Simulator for Oculus Rift Artist, Programming 2013

# **Scientific Work**

Planning and development of a dedicated system for the creation of card games in the Unity Game Engine - Master Thesis - 2018

Generierung von Texturen für terrestrische Planeten - Bachelor Thesis - 2016

**Modern Game Engine Architecture** - Analysis of the Unity Game Engine structure compared to the models proposed in Game Engine Architecture (Gregory, 2009) - Scientific Work - 2016