KJELL SCHWÄRICKE

Game Design, Development and Programming

SKILLS

C#

GLSL/HLSL

C++

Java

GIT

CONTACT

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Github Portfolio

PROFILE

Game Programmer with technical skills and a passion for shader coding.

Game Design experience as developer and designer of company training experiences, selfmade game prototypes and design documents. Additional university courses about planning and creating games and game design documents, seven Game Jams, and many GDC talks. Meetings with professional game designers at game industry events like the Gamecamp Munich and Talk&Dev.

Results-oriented and pragmatic method of working, with focus on either slow, structured high quality work or rapid prototyping. Highly motivated to collaborate in a team, comfortable with agile software development, task trackers like Jira, and remote work.

WORK EXPERIENCE

Working Student Straightlabs April 20 - now
Research and Development

- Testing and documentation of Unity assets
- Creation of inhouse asset packages for Rider from undocumented code and assets
- Research for existing technologies and solutions
- Bugfixing in shader and C# code

Technologies include:

- C# coding in Unity
- GLSL/HLSL shader coding
- Jira, Confluence, Bitbucket

Achievements include:

- Joining and getting up to speed fully remote due to Covid-19
- Working independently with old code bases and sparse instructions

EXTRACURRICULAR ACTIVITIES

Gamejams
semestergamejam.de

A huge part of my current game development experience has come from the bi-yearly Semestergamejam organised by other Games Engineer TUM students, where I participated 7 times, which grew from about 100 to over 200 participants in that time. Some of the games are uploaded in my Github portfolio.
This helped greatly in learning practical collaborative game design, communicating that vision to a team and improving based on early playtesting.
For technical skills, it taught programming proficiency in diverse aspects of game dev, 2D animation, 2D/3D controllers, tile based gameplay, shader, VR and more.

Home Projects
As most programmers, I have dozens of prototypes and a notebook full of game design documents for diverse ideas. I also coded my own raymarching shader and volumetric aswell as traditional vertex- and pixelshaders with Shadertoy online, in Unity and terrain and mesh shaders for the selfmade C++ Game Engine

LANGUAGES

German Fluent

English Fluent

French Basics

Working Student AR-Experts March 19 - Feb 20
Research and Development

Working on a variety of tasks related to VR and AR, on inhouse training applications and contract work

- Expanding and refactoring an existing HoloLens training application
- Creating an industrial picking workflow app for Vuzix Blade AR glasses combined with a DataGlove for QR-Code scanning.
- Developing the mobile Android version of the training application
- Cloud sharing from HoloLens to Android mobile and other AR glasses

Technologies include:

- C# development in Unity
- HLSL, Shaderlab for shader coding
- Jira for Agile Sprints
- Bitbucket for version control with modular subrepositories for varying functionality on different platforms

Achievements include:

- Getting comforable with uncommented legacy code in their HoloLens AR training app
- Adding multi-platform cloud sharing from AR glasses to other AR and mobile devices using REST API
- Independent development of the Android client to display workflows created with AR glasses, from planning UI and data structures, to implementation and iteration with minimal guidance

Internship AR-Experts Dec 18 - Feb 19
Research and Development

Concept and prototype implementation of a system to show 2D Video content in a 3D virtual environment.

- No handholding, only goal is to research other approaches and then implement my own.
- Autonomous development of a new UI concept, iteration and UX issue solving.

Technologies include:

- C# development in Unity.
- HLSL, Shaderlab.
- HoloLens, for recording and playback of the video in AR.

EDUCATION

B. Sc. Informatik: Games Engineering 2016 - 2020
Technische Universität München

Main thematic priority of the bachelor studies was to teach programming and computer science basics in combination with an understanding of game development and game industry knowledge. About two thirds of courses are shared with the general TUM Informatics studies, but in depth teaching of obscure programming languages is replaced with courses like programming a C++ game engine from scratch, creating roughly one game per semester, like an android game using unconventional inputs or using a social network and other diverse themes.

Optional Courses
Storyworlds, Indie Games, Virtual Trainingworlds, 3D Interfaces, Modern Techniques in Shader Development

From the optional courses I chose Game Development and Game Design courses that required planning and cost estimation for the development of a software project with a small prototype or other useful game development related topics.

Feb 2020

Bachelor Thesis in collaboration with Straightlabs
Development and Implementation of a Realistic Dialogue System for Virtual Reality Training

A new dialogue system for VR social training applications was proposed where direct voice input is mapped onto more traditional game dialogue systems. A prototype was developed by interfacing and modifying IBM Watson Speech-to-Text and an existing traditional dialogue system provided by Straightlabs. Additional research focus was on the maturity of the involved technologies

2013

Early Studies
LMU Munich

One week of visiting lectures and in the afternoons programming a game in a group of three using Visual Python, in our case creating a Shoots and Ladders game and coding several animations and models from basic shapes

2007 - 2015

Abitur
Gymnasium Schrobenhausen

Secondary school graduation, with a focus on mathematics and technical subjects. School-internship 2013 in the IT-department of BAUER-AG