# Furkan M. Küçükdemir

https://ff-k.github.io/

Summary

- Software engineer and computer graphics researcher
- Interests: Real-time computer graphics, ray/path tracing and digital geometry processing
- Prefers to work on low-level code
- Reverse-engineering hobbyist

# **EDUCATION**

# Middle East Technical University

Ankara, Turkey

MSc in Multimedia Informatics; GPA: 3.61

Oct. 2017 - Sep. 2020 (Expected)

Last Updated: August 10, 2020

Email: furkankdem@gmail.com

Thesis: 3D Indoor Scene Segmentation using Consensus Clustering

Supervisor: Assoc. Prof. Yusuf Sahillioğlu

# Hacettepe University

Ankara, Turkey

BSc in Computer Engineering; GPA: 3.42

Sep. 2013 - June 2017

#### EXPERIENCE

# Research Intern, Hacettepe University

Ankara, Turkey

Aug. 2016 - Sep. 2016

Worked on a research project about discovering the topology of a network of IoT devices with Assoc. Prof. Mehmet Köseoğlu. Implemented a wireless network scanner using Wireless Tools for Linux and collected data via Intel Edison boards. Besides, the same application is ported to Android to allow mobile phones to help data collection phase.

Technologies Used: Android NDK and SDK, C, Java, MATLAB

# Game Developer Intern, Panteon Game Technologies

Ankara, Turkey

June 2015 - Oct. 2015

Worked on three different mobile game projects. One of them, MoBu, is published during the internship. Implemented endless gameplay mode for it.

Technologies Used: C#, Git, Jenkins CI, Unity 3D

# SELECTED PAST PROJECTS

azimuth A multithreaded, CPU based ray/path tracer.

hoppy A simple 2D game written in C from scratch for aarch64 based

Android devices.

Project Vikings A 3D racing game developed as a course project. Implemented AI

behaviour and car mechanics.

**Thinkies** A simple casual game made during Global Game Jam 2015.

**Programming Languages** C, C++11, C#, MATLAB, Java, x86 Assembly

Graphics APIs OpenGL (3.x), OpenGL ES, Direct3D (10 & 11)

Shading Languages GLSL, ShaderLab, HLSL

Graphics Debuggers PIX for Windows, Intel GPA, NVIDIA NSight

Parallel Computing CUDA

Game Engines Unity3D, Cocos2d

APIs/Libs Win32 API, Eigen, FBX SDK, Intel SSE, OpenSL ES, pthreads

Scripting Bash, Batch

Compilers MSVC++, gcc/g++

IDEs/Text Editors Notepad++, Vim, Microsoft Visual Studio, Android Studio, Eclipse

Version Control Git

Other Programming Tools GDB, Valgrind, dotPeek, make

**3D Graphics Tools** Blender, MagicaVoxel, MeshLab

Raster Graphics Tools Adobe Photoshop, GIMP

Operating Systems

MS-DOS 6.22, Microsoft Windows (95, 98, XP, Vista, 7, 8),

Various Linux Distributions (incl. CentOS, Kali, Lubuntu, Tails, Ubuntu)

Others CSS, HTML, LaTeX, MongoDB, MySQL, PHP, Prolog, SQL

# LANGUAGES

Turkish (native)

English (fluent)

German (basics)