GUILLAUME KOTULSKI

Software Engineer

CONTACT

Email

Github
github.com/F4r3n

Phone

Location
Dublin, Ireland

SKILLS

Programming

C++, Rust, TypeScript, Python, Shell, JavaScript, C#

Tools

Visual Studio, Git, VSCode, Perforce, CMake, valgrind, gdb, Xcode

Platforms

Windows, Linux, Mac

Certificates

Machine Learning

LANGUAGES

French (Native)

English (Profesional working)

Japanese (Limited)

EDUCATION

2016
Master's degree:
Computer Science
ENSICAEN. France

WORK EXPERIENCE

Software Engineer, 4D-Paris, France — 2017 - Present

Project Leadership:

- Led development of Language Server Protocol (LSP), enabling 4D coding within Visual Studio and VS Code (C++, TypeScript). Designed and implemented custom editor extensions to enhance developer experience.
- Led 4D language improvement to enhance the language compiler & interpreter
- Managed cross-functional services such as DevOps, development, and documentation units with Rust, Node.js, Python and GitHub Actions to facilitate integration between product and documentation.

Solution Design & Innovation:

- Created IntelliSense (C++) functionalities in code editor, enabling features such as code completion, definition navigation & syntax checking.
- Engineered a new back-end for mobile (C++), achieving successful delivery within a record breaking one-week TaT.
- Modernized legacy codebase in Objective-C by upgrading to new APIs, replacing outdated macOSX interfaces with dark mode compatibility.
- Designed & implemented a ZIP library wrapper, enabling manipulation of zip archives within the product.

Mentorship & Coaching:

- Mentored junior developers leading to improved code quality and faster issue resolution.
- Contributed to the growth of 4D's engineering team by actively participating in the recruitment and selection process.

Engineer R&D, STEREOLABS-Orsay, France — 2016-2017

Mixed Reality/Virtual Reality Expertise:

- Lead developer for the Unity plugin for Mixed Reality/Virtual Reality applications.
- Designed and implemented a Mixed Reality light system utilizing both Forward and Deferred rendering techniques.
- Created a unique system for capturing Mixed Reality footage from alternative perspectives, enhancing the production of Augmented Reality interactions.
- Developed mini-games for Virtual Reality and Mixed Reality platforms, contributing to the immersive experience for users.

Problem Solving & Solution Design:

- Engineered a native plugin utilizing C++ and CUDA to integrate with the ZED SDK, employing both OpenGL and DirectX for enhanced performance. Published comprehensive tutorials to assist new users in effectively using the Unity plugin.

Software Engineer Intern, Kingston University, UK — 2015

Solution Design:

- Collaborated with Kingston Hospital to design and develop an interactive serious game using Kinect and Unity, enhancing patient engagement and rehabilitation.