

GAUTHIER BOUYJOU

3D Graphics Engineer

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🔗 [github: github.com/hiergaut](https://github.com/hiergaut) 📁 [portfolio: hiergaut.github.io](https://hiergaut.github.io) 📍 Toulouse / France



EXPERIENCES

Entrepreneur (Medical application)

Independant 📅 07/2024 - Présent 📍 Blagnac / France
6 months

- Creation of a device to make an ultrasound scanner compatible with 3D for automatic diagnosis or patient care

Software engineer (OpenSource)

Toulouse Tech Transfer 📅 02/2024 - 06/2024 📍 Toulouse / France
5 months

- Software development C++
- Open Source (GitHub, GitLab)
- CI (GitHub Action)
- Unitary tests C++ (Catch, Quality)
- Documentation C++ (Doxygen, Sphinx)

Research engineer (Medical application)

IRIT (Institut de Recherche en Informatique de Toulouse)
📅 02/2022 - 08/2023 📍 Toulouse / France
18 months

- Ultrasound calibration, ultrasound phantom creation, 3D printing assembly (FreeCAD, SolidEdge, Blender)
- FDM and resin printing
- Sensor flow synchronisation (TCP/IP C++)
- Virtual and augmented visualisation (Unity3D, HoloLens 2, MRTK)

Research engineer (Offline rendering)

IRIT (Institut de Recherche en Informatique de Toulouse)
📅 10/2020 - 10/2021 📍 Toulouse / France
12 months

- Creation of shaders for the Arnold engine renderer in order to implement a specific rendering research article (shadow layers)
- Compositing with Natron
- Creation of plugin for the Maya software (Autodesk)

Internship (Real-time rendering)

DIGINEXT 📅 03/2020 - 08/2020 📍 Toulouse / France
6 months

- Test of the possibility of integrating a library (bgfx) allowing abstraction from the various graphics APIs (D3D11, D3D12, OpenGL, Metal, Vulkan, GNM) in an existing C++ serious industrial engine

Aeronautical assembler

Airbus 📅 03/2013 - 07/2016 📍 Toulouse / France
3 years

- Fitter on Airbus FAL and for subcontractors on the outskirts of Toulouse (workshops, assembly line)

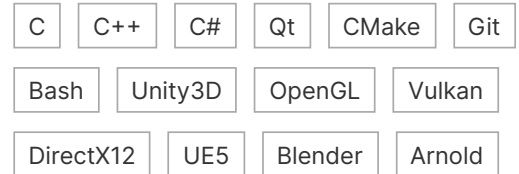
Aeronautical assembler internship

Airbus 📅 01/2013 - 12/2013 📍 Blagnac / France

LANGUES

English Advanced ●●●●● French Native ●●●●●

COMPÉTENCES



PUBLICATIONS

A Framework for Real-Time Visualization in Augmented Reality

📅 2024
🔗 ieeexplore.ieee.org/document/10793459

Creation of communication protocol (TCP/IP C++ Sockets)

📅 2024 🔗 github.com/T-PLAY/hub

Efficient Stratified 3-D Scatterer Sampling for Freehand US Simulation

📅 2023
🔗 pubmed.ncbi.nlm.nih.gov/37824323/

Creation of custom rendering engine (OpenGL, Qt, C++)

📅 2020
🔗 github.com/hiergaut/Goliath-Engine

ÉDUCATION

Entrepreneurship / Entrepreneurial studies

BGE Sud-Ouest (Toulouse)
📅 09/2023 - 12/2023

Master's degree IGAI, Computer Graphics and Image Processing

Université Paul Sabatier Toulouse III
📅 2019 - 2020

License degree in Computer science

Université Paul Sabatier Toulouse III
📅 2016 - 2018

CQPM, Aeronautical assembler

Lycée Saint-Exupéry (Blagnac)
📅 2013

BAC STI, Mechanical Engineering

Lycée International Victor Hugo (Colomiers)
📅 2011