THOMAS UNG
SOFTWARE RESEARCH ENGINEER

CONTACT:
+33 6 09 35 96 27
THOMAS.UNG.PRO@GMAIL.COM
www.thomas-ung.fr

ABOUT ME

Qualities	Curious - ambitious - fast learner - takes initiatives - communicate a lot
Languages	French (Native) - English (Fluent) - Mandarin (HSK2) - German (B1)
Programming	C++ - Rust - Typescript - Go - Python - JavaScript - Java - C
Web	Node.Js - Deno.js - Aleph.js - Laravel - Next.js - Yew.rs
Database	SGBD MariaDB - MySQL - Postgresql - SQLite - Redis
Other tools/Framework	Neovim - Git - CMake - Docker - Kubernetes - ROS - Pytorch - Unreal Engine
Relevent Coursework	Cloud computing - algorithm optimization - distributed systems - parallel architecture - Machine Learning

WORK EXPERIENCES

Research Software engineer -   **1 year - 2022-2023**
CNRS, Adelaide, Australia

- Technical Leader - Manager for 6 FTE / 1 year, project management for the Robocup@Home competition, task management, make sure code guidelines are respected (Git, Github, Discord)
- Code refactor, create and maintain an OS (Gentoo Linux, Docker, c++, ROS, python, SQLite)
- Development of a digital twin environment in Unreal Engine (Unreal Engine 5, ROS, c++, Clang, CMake)
- Research of onboard Visual SLAM solutions for Pepper robot (ROS, c++)
- Software integration for the robocup project (ROS, c++, Whisper, YOLOv8, Bert, Spacy, Kaldi)
- Design of a web interface and research of an embedded easy to use and deploy framework for Pepper Tablet

Software engineer intern -   **6 months - 2022**
LAB-STICC, Locmaria-Plouzané, France

- Depth camera calibration for pepper
- Integration of a finite state machine as a scheduler for RoboCup tasks (6 months) (ROS, C++, Python)
- Research and integration on a stable onboard navigation solution for the robot Pepper
- Participation to RoboCup 2022 Bangkok with the team RoboBreizh (1rst place SSPL)

Software engineer intern -   **2 months - 2021**
LAB-STICC, Locmaria-Plouzané, France

- Research and implementation of a navigation module for Pepper robot as part of the RoboCup@Home competition (Gazebo, ROS)

PROJECTS

- 1rst place Robocup@Home SSPL 2023 and 1rst place Robocup@Home SSPL 2022
- Video converter API (GCP. Kubernetes, Next.js, Flask,Prometheus)
- Othello min max AI (Go)
- Time zone converter (Rust)

PUBLICATIONS

- *Cédric Buche, Maëlic Neau, Thomas Ung, Louis Li, Tianjiao Jiang, Mukesh Barange, and Maël Bouabdelli. 2023. RoboBreizh, RoboCup@Home SSPL Champion 2022. In RoboCup 2022:: Robot World Cup XXV. Springer-Verlag, Berlin, Heidelberg, 203–214. https://doi.org/10.1007/978-3-031-28469-4_17*
- *Louis Li, Maëlic Neau, Thomas Ung and Cédric Buche. 2023. Crossing Real and Virtual : Pepper Robot as an Interactive Digital Twin*

EDUCATION

Master 2 in computer science -
Artificial Intelligence and algorithm optimization
2021-2022
Umeå Universitet, Sweden

Master 1 degree in computer science -
Autonomous, Interactive and Intelligent Systems
2020-2022
Université de Bretagne occidentale, France

REFERENCES

- Cédric BUCHE, Professeur des Universités, buche@enib.fr, +61483343787