

Paul Lesur

Software Engineer



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Links

lesurpaul.fr
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Programming Languages

Rust
C++
Python
Bash
SQL

Languages

French Native
English C2
German B2
Spanish B1

Other Skills

Software Engineering
Algorithm Development
Computer Vision
Control Engineering
Optimization
Machine Learning
Linux
ROS / ROS2
Eigen, OpenCV
CasADi
Gurobi
PyTorch
VCS (git)

Interests

Algorithm Design
Compiler Development

Artificial Intelligence
Project Management

System Programming
Software Optimization

Experience

- 2023-04 (Current) **Systems Developer** *TOMRA Sorting GmbH* Koblenz, Germany
Development of Calibration Tools for the AutoSort machines, Enhancing System Security (**NIS2**), porting code to Linux, and general performance improvements.
- 2022-02 2023-02 **PhD Student in Control and Planning** *TU Kaiserslautern* Kaiserslautern, Germany
Research on **Path Planning and Control for Multi-Agent Systems**, applied to Autonomous Driving (MIP using **Gurobi**, MPC / NLP using **CasADi**, DL using **PyTorch**, planning in **Rust**).
- 2020-10 2021-12 **C++ Software Engineer** *Exotec* Croix, France
Real-Time control of up to **200 mobile robots** for an Automated Storage Solution (**Path Planning, Error Recovery in C++**).
Lead Engineer on the largest system deployed to date.
- 2018-01 2020-10 **Computer Vision Research Engineer** *DFKI* Kaiserslautern, Germany
Research on visual SLAM (ORB_SLAM2, VINS), Tracking, Image Segmentation, Object Recognition, using: **CNNs, EKFs, OpenCV, Eigen, g2o, ROS, PyTorch (AI/Machine Learning framework)**.
- 2017-09 2017-12 **Software Engineering Consultant** *Alten Sud-Ouest* Toulouse, France
C++ Consultant, worked with Orange on their embedded C++/Qt software.
- 2016-05 2016-07 **C++ Software Engineer** *INRIA* Villeneuve D'Ascq, France
Pose Estimation of an indoor blimp (using **OptiTrack** and onboard **IMU/camera**), with remote control, in C++ (**OpenCV**), **Python**, and **Matlab/Simulink**.

Education

- 2016-17 **Academic Exchange, Computer Science** *Juniata College* Huntingdon, PA, USA
Software Engineering and IT Security
Project Management
- 2012-17 **Master in Computer and Electronics Engineering (M.E)** *ISEN Lille* Lille, France
Mathematics, Physics, Engineering, Image/Signal Processing, Computing, Electronics (Microcontrollers)