

# VIRGILE DE LA ROCHEFOUCAULD | RESUME

- » **Status:** Double Degree **PhD student** in **Graduate school of information science and technology, Takemura lab** at **Osaka University, Japan** and **INSA Toulouse, France** at **LAAS-CNRS Toulouse**
- » **Fields:** Robotic, Perception, Simulations, **Multi-robots Planning, System architecture and control**, multi-medium robots, trans-media robots
- » **Comp. skills:** Python and C++ (in O.O.P), Matlab/Simulink,  $\text{\LaTeX}$ , linux, CAD, **ROS, ROS2**, Github
- » **Activities:** Reading, Hiking, Meditation, Video games, Muay thai
- » **Languages:** **French** (mother tongue), **English** (full professional proficiency), **Japanese** (basic notions), **Spanish** (basic notions)



## »»» Working experiences

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|------------------------|---|--|
| 2021/2022 -<br>6 month | <b>Research student on multi-robot mission planning</b>   | <a href="#">Osaka University</a>             |
|                        | » Working on PhD subject, bibliography and preparation for PhD school oral examination at Takemura Laboratory. Construction of the subject on multi-robot, ASA (Aerial, Surface, Aquatic) drones and Human-In-The-Loop (HITL) interaction |  |
| 2020/2021 -<br>6 month | <b>Internship as a perception engineer for a startup company</b>  | <a href="#">NimbleOne</a>                    |
|                        | » Development of a visual SLAM localization module for a mobile robot, using inertial sensor fusion and multi-mapping to enhance state accuracy and robustness  |  |
| 2019/2020 -<br>5 month | <b>Internship on multi-robot monitoring mission</b>   | <a href="#">ONERA (French Aerospace Lab)</a> |
|                        | » Deployment of a <b>multi-robot system</b> in a motion-captured environment, moving different drones in a <b>ROS2</b> simulated environment  |  |
| 2018/2019 - 4<br>month | <b>Internship at Takemura Laboratory of the Cybernetics Center</b>  | <a href="#">Osaka University</a>             |
|                        | » Modification of a <b>Drone</b> (UAV) and creation of a ROS-based path planning model for the MBZIRC2020 competition   |  |
| 2017/2018 - 5<br>month | <b>Internship at ISIR reaserch laboratory</b>   | <a href="#">Sorbonne Université</a>          |
|                        | » Modeling and control of <b>multiple robot arms</b> based on visual color sensor data  |  |

## »»» Projects

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|-----------|---|---|
| 2022      | <b>Vein infrared pattern identification</b>   | <a href="#">Sysmex Corporation, Hyogo</a> |
|           | » Computer vision and image processing for vein pattern assesement and recognition using Python                                   |   |
| 2020/2021 | <b>Multi-robot collaboration for search and rescue</b>  | <a href="#">Sorbonne Université</a>       |
|           | » Project manager and developer: Utilised Python/C+ in collaboration between mobile robot and drone for search and rescue problem |   |
| 2022      | <b>RoMarin Project</b>  | <a href="#">Sorbonne Université</a>       |
|           | » Team project for the construction and optimisation of an ROV in C++, specialising in the construction of the robotic gripper    |   |

»» Education

2022-current	<b>Double Degree PHD, LAAS-CNRS EDSYS/IST</b>	<a href="#">INSA Toulouse/Osaka University</a>
	» Codirected PhD between INSA Toulouse in France and Osaka Univeristy in Japan. Subject on trans-media multi-robots systems and human robot interaction	
2018-2021	<b>MASTER 2, Advanced Systems and Robotics (SAR)</b>	<a href="#">Sorbonne Université/ENSAM</a>
	» Master degree covering mechanical and software enginnering (A.I, programming, engineering..) in the CMI Mechanics, advanced university courses	
2018	<b>Erasmus Exchange in Munich</b>	<a href="#">Technische Universität München (TUM)</a>
	» Advanced Mechanical departement, Full semester aboard	
2015 - 2018	<b>Bachelor in Mechanic</b>	<a href="#">Sorbonne Université</a>
	» In the CMI Mechanics, advanced university bachelor, specialised in robotic and mechanical engineering	

»» Research scholarship

May 2022- May 2023	<b>Sysmex Scholarship</b>	<a href="#">Sysmex Corporation, Hyogo, Japan</a>
	» Scholarship sponsored by Sysmex Corporation with part-time research on site	