

Swarm and Modular Robotics PhD Student seeking 1-year Post-Doctoral position

WORK EXPERIENCE

Graduate Computer Science Researcher

2017-2020 - Femto-st Institute, CNRS, Univ. Bourgogne Franche-Comté, France

- ▶ Research on distributed intelligence for the purpose of creating programmable matter from large ensembles of modular micro-robots.
- ▶ Technical lead on VisibleSim, our C++ simulator for modular robotic research used by several research teams around the world.
- ▶ Teaching and coordination of undergraduate and graduate courses, participated in the design of a distributed programming course.
- ▶ 3 publications in renowned international journals and conferences.

Master's Degree Graduation Project

2017 (6 MONTHS) - Supralog, Antibes, France - Intr@ssoc ERP Software

- ▶ Design of a secure REST server infrastructure and C# implementation.
- ▶ Design of a reactive Javascript module with VueJS 2.0 for the WebApp of our ERP for non-profit organizations, leveraging the API above.
- ▶ Design of a cross-platform Xamarin mobile application providing the core features of our product, tailored to a mobile environment.

Research Assistant / Software Engineering Intern

2016 (4 MONTHS) - The Hong Kong Polytechnic University, Hong Kong

- ▶ Kick-started VisibleSim, a graphical simulator for modular robotic research from a pre-release state to its first stable version!
- ▶ Architectural overhaul of the simulator, refactoring, documentation, et addition of new modules and features for supporting research.

iOS Developer

2015-2016 (4 MONTHS) - NSigma JE, Grenoble-INP Ensimag, France

- ▶ Patches and updates on an iPad application for professional fluid meter reading, with a strong involvement of the client, Engie Cofely.

Research Assistant

03/2014 - 07/2014 - Carnegie Mellon University, USA - Claytronics Project

- ▶ Contributed to the Claytronics project modular robotic research for programmable matter and C implementation of an embedded virtual machine for the Meld language, now used in education and research.

EDUCATION

PhD in Computer Science

10/2017-10/2020 - FEMTO-ST, CNRS, Univ. Bourgogne Franche-Comté, France

Master Degree in Computer Science and Engineering

2014-2017 - Ensimag, Grenoble Institute of Technology, Grenoble, France

- ▶ French "Grande École" in Computer Science and Applied Mathematics. Specialization in Information System Engineering.
- ▶ (Fall '16) Exchange Student at **Universidad Politecnica de Madrid**, Spain.



PIERRE THALAMY



AGE

24 years old



PHONE

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EMAIL

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LINKEDIN

linkedin.com/in/pthalamy



GITHUB

github.com/pthalamy



LANGUAGES

French

English (Proficient):

TOEIC 985 (2014)

Spanish (Intermediate)



MOBILITY

International

PIERRE THALAMY

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Position

APPENDIX

PUBLICATIONS AND HONORS

International Journals

- **Pierre Thalamy**, Benoît Piranda, and Julien Bourgeois. "A Survey of Autonomous Self-Reconfiguration Methods for Robot-Based Programmable Matter." *Robotics and Autonomous Systems* 120. [2019](#). <https://doi.org/10.1016/j.robot.2019.07.012>.
- **Pierre Thalamy**, Benoît Piranda, Frédéric Lassabe, and Julien Bourgeois. "Deterministic Scaffold Assembly By Self-Reconfiguring Micro-Robotic Swarms." *Swarm and Evolutionary Computation: Special Issue on "Parallel/ Distributed Combinatorics and Optimization"* 2020.

International Conferences

- **Pierre Thalamy**, Benoît Piranda, and Julien Bourgeois. "Distributed Self-Reconfiguration Using a Deterministic Autonomous Scaffolding Structure." In *Proceedings of the 19th International Conference on Autonomous Agents and MultiAgent Systems*, 140–48. Montreal QC, Canada, [2019](#).
- **Pierre Thalamy**, Benoît Piranda, Frédéric Lassabe, and Julien Bourgeois. "Scaffold-based Asynchronous Distributed Self-reconfiguration by Continuous Module Flow." In *Proceedings 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems*. Macau, China, [2019](#).

Service to Academia

- [2020](#). Guest reviewer for Springer Algorithmica.
- [2020](#). Delegate reviewer for IROS 2020.

Seminars

- [August 12 – 17, 2018](#). Dagstuhl Seminar 18331. "Algorithmic Foundations of Programmable Matter." <https://bit.ly/2Qmi4WT>

Scholarships

- [2019](#). Mobility scholarship awarded by the International Foundation for Autonomous Agents and Multiagent Systems (IFAAMAS) in the context of the AAMAS 2019 conference: \$1,000.

TEACHING

Undergraduate Courses in Networking and Telecommunications – University of Franche-Comté, France

- [Spring '18-'20](#). Network Infrastructure Security. **Course Coordinator**. [Lecture 7.5h, Tutorials 7.5h, Lab 15h] / year.
- [Fall '17](#). Operating System and System Programming. **Course Coordinator**. [Lecture 6h, Lab 39h].
- [Spring '18-'20](#). Security and Performance. **Teaching Assistant**. (12h / year).
- [Spring '18-'20](#). Internet Technology 2. **Teaching Assistant**. (12h / year).
- [Fall '17](#). Initiation to Web Development. **Teaching Assistant**. (15h).

MSc in Internet of Things – University of Franche-Comté, France

- [Fall '20](#). Swarm Robotics and Modular Robot Programming. **Teaching Assistant**. (6h).