Benjamin Fasquelle

Phd student in robotics and computer science

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Experience

2018–2021 **PhD in robotics**, *LS2N, École Centrale de Nantes*, Theoretical and experimental study of innovative robot architectures inspired by the neck of birds: design and control.
Supervised by Philippe Wenger and Christine Chevallereau, in the Robotique et Vivant team at LS2N, Nantes

2018 **Second year of Master Degree Internship**, *Simulation and control of a tensegrity mechanism inspired by a bird neck*.
Supervised by Philippe Wenger and Christine Chevallereau, in the Robotique et Vivant team at LS2N, Nantes

2017 **Summer Internship**, *Link prediction with sequences on online social networks*.
Supervised by Renaud Lambiotte, in the NaXys team at University of Namur, Belgium

2016 **Summer Internship**, *Visual servoing through mirror reflexion*.
Supervised by Éric Marchand, in the LAGADIC team at INRIA Rennes

Teaching

2018–2021 **Supervision of Directed Work and Practical Work**, *École Centrale de Nantes*.
Algorithms and Programming, Systems and Database
Students in the first year of engineering school - 86 hours per year

2015–2016 **Interventions in elementary school**, *École Normale Supérieure de Rennes*.
Unplugged Computer Science activities in elementary school (CM1/CM2)
Preparation of the activities and 4 interventions of 2 hours each

Education

2018–2021 **PhD**, *LS2N, École Centrale de Nantes*.
Robotics and Computer Science

2016–2018 **Master of Computer Science**, *Rennes 1 University*.
Track Research and Innovation (R&I)

2015–2018 **Magistère of Computer Science**, *École Normale Supérieure de Rennes*.
(2016-2018 : with normalien status)

2015–2016 **Last year of Computer Science Bachelor Degree**, *Rennes 1 University*.
Track Research and Innovation (R&I)

2013–2015 **Grandes Écoles preparatory class Maths/Physics - Option Computer Science**, *Lycée Clemenceau*, 44 000 Nantes .

2013 **Science High school diploma**.
Mathematics speciality

Computer skills

C/C++, Python, Matlab, Simscape, LaTeX, OCaml : good
HTML, Java, Scala, Assembleur, Isabelle/HOL: basic

Foreign languages skills

French	mother tongue
English	B2
Spanish	A2

Publications

Fasquelle, B., Furet, M., Khanna, P., Chablat, D., Chevallereau, C., & Wenger, P. (2020, May). A bio-inspired 3-DOF light-weight manipulator with tensegrity X-joints. In 2020 IEEE International Conference on Robotics and Automation (ICRA) (pp. 5054-5060). IEEE.

Fasquelle, B., Furet, M., Chevallereau, C., & Wenger, P. (2019, July). Dynamic modeling and control of a tensegrity manipulator mimicking a bird neck. In IFToMM World Congress on Mechanism and Machine Science (pp. 2087-2097). Springer, Cham.

Furet, M., Chablat, D., Fasquelle, B., Khanna, P., Chevallereau, C., & Wenger, P. (2019, August). Prototype of a tensegrity manipulator to mimic bird necks. In 24ème Congrès Français de Mécanique.

Böhmer, C., Abourachid, A., Wenger, P., Fasquelle, B., Furet, M., Chevallereau, C., & Chablat, D. (2019, October). Combining precision and power to maximize performance: a case study of the woodpecker's neck. In 44ème congrès de la Société de Biomécanique.

Marchand, E., & Fasquelle, B. (2017, September). Visual Servoing from lines using a planar catadioptric system. In 2017 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) (pp. 2935-2940). IEEE.

Website

`http://perso.eleves.ens-rennes.fr/people/Benjamin.Fasquelle/`

Interests

Sport	Riding, Athletics