

# DAVID JOURDAN

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## Education

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<b>PhD in Computer Science - Université Côte d'Azur</b> Advisors: Adrien Bousseau and Mélina Skouras Topics: Computational fabrication, geometry processing	October 2018 - March 2022
<b>MSc in Computer Science - Télécom Paris</b> Insitut Polytechnique de Paris Topics: Computer graphics, applied mathematics	2015 - 2018
<b>Classes Préparatoires MPSI/MP* - Lycée Chateaubriand</b> Rennes, France. Intensive training in mathematics and physics.	2013 - 2015

## Work Experience

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<b>Postdoctoral researcher – Inria Nancy</b> Member of the MFX team lead by Sylvain Lefebvre	2022 - 2023
<b>Teaching assistant – Polytech Nice</b> Classes taught: Imperative programming (Python), Data structures and algorithms (Java)	2019 - 2022
<b>Research Intern – Inria Sophia-Antipolis</b> Advisors: Adrien Bousseau and Mélina Skouras	March 2018 - August 2018

## Publications

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- Shrink & Morph: 3D-printed self-shaping shells actuated by a shape memory effect**  
David Jourdan, Pierre-Alexandre Hugron, Camille Schreck, Jonàs Martínez, Sylvain Lefebvre  
*ACM Transactions on Graphics (Proceedings SIGGRAPH Asia 2023)*
- Four-dimensional Printing on Textiles**  
**Evaluating digital file-to-fabrication workflows for self-forming composite shell structures**  
Asterios Agkathidis, David Jourdan, Yang Song, Arathi Kanmani, Ansha Thomas  
*Education and research in Computer Aided Architectural Design in Europe (eCAADe) 2023*
- Simulation of Printed-on-fabric Assemblies**  
David Jourdan, Mélina Skouras, Etienne Vouga, Adrien Bousseau  
*Symposium on Computational Fabrication (SCF) 2022*
- Computational Design of Self-Actuated Surfaces by Printing Plastic Ribbons on Stretched Fabric**  
David Jourdan, Mélina Skouras, Etienne Vouga, Adrien Bousseau  
*Computer Graphics Forum (Proceedings Eurographics 2022)*
- Printing-on-Fabric Metamaterial for Self-Shaping Architectural Models**  
David Jourdan, Mélina Skouras, Etienne Vouga, Adrien Bousseau  
*Advances in Architectural Geometry (AAG) 2020*
- Optimizing Support Structures for Tensile Architecture**  
David Jourdan, Mélina Skouras, Adrien Bousseau  
*Journées françaises d'informatique graphique (jFIG) 2018*

## Invited talks

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<b>Computational design of self-shaping textiles</b> Liverpool School of Architecture Inria Nancy (Team MFX)	02/11/2022 22/02/2022
<b>Printing-on-Fabric Metamaterial for Self-Shaping Architectural Models</b> GdR MePhy Workshop (online): From Computational Fabrication to Material Design	22/06/2021

Journée IHM IG-RV (online): Tangible interfaces	07/06/2021
The University of Texas at Austin (Etienne Vouga's group, online)	20/12/2020
Journées françaises d'informatique graphique (jFIG) 2020 (online)	27/11/2020
Inria Grenoble (Team Anima, online)	29/11/2020

## Service

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### Teaching

Workshop on Computational design	University of Liverpool (2022 - 2023)
Imperative programming	Polytech Nice (2019 - 2022)
Data structures and algorithms	Polytech Nice (2019 - 2021)

### Reviewer

SIGGRAPH Asia 2023 Full Papers  
Eurographics 2023 Short Papers  
SIGGRAPH 2023 Full Papers

## Programming skills

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### Open-Source contributions

*Fabsim*: A simple C++ library written in C++ for simulating rods, membranes and shells

*Optim*: An optimization library for solving nonlinear problems. Contains Newton method and LBFGS

### Languages

C++, Python, JavaScript, Java

### Technologies

Eigen, CMake, Catch2, P5.js

## Personal

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### Languages spoken

French (native), English (fluent)

### Music

Jazz trombone (conservatory of Nancy)