Pedro Maciel Xavier BSc '23 ♦ BSc '23

////// / EDUCATION

Purdue University, West Lafayette, IN

aug '25 ▶ *present*   Ph.D. Electrial & Computer Engineering*
FIRST YEAR   *with Vassilis Kekatos*

aug '24 ▶ *jul '25*   Ph.D. Chemical Engineering
TRANSFERRED   *with David E. Bernal Neira*

Federal University of Rio de Janeiro, Brazil

jul '22 ▶ *present*   M.Sc. Computer Science & Systems Engineering*
GPA .96 ❶   *with Nelson Maculan & David E. Bernal Neira*

apr '16 ▶ apr '23   B.Sc. Computer & Information Engineering
GPA .79 ❶   *with Priscila Machado Vieira Lima*

feb '18 ▶ apr '23   B.Sc. Mathematics
DOUBLE MAJOR

////// / EXPERIENCE

Microsoft Research, Cambridge, UK

`Julia` `Git` `Mathematical Programming` `Analog Optimization` `Open-Source`

apr '24 ▶ jul '24   Research Intern
FULL-TIME   *with Christos Gkantsidis & Kirill Kalinin*

PSR Energy Consulting & Analytics, Rio de Janeiro, Brazil

`Julia` `Python` `GIS` `Git` `Operations Research` `Power Systems Analysis`
`Stochastic Optimization` `Innovation` `Quantum Optimization` `Open-Source`

mar '23 ▶ mar '24   Research & Development Analyst
FULL-TIME   *with Joaquim Dias Garcia & Guilherme Bodin*

nov '21 ▶ feb '23   Research & Development Intern
PART-TIME   *with Joaquim Dias Garcia*

Purdue University, West Lafayette, IN

`Julia` `Git` `Disjunctive Programming` `Quantum Optimization` `Open-Source`

aug '23 ▶ dec '23   Visiting Scholar
FULL-TIME   *with David E. Bernal Neira*

////// / SELECTED PUBLICATIONS

jun '24   **Disjunctive Programming meets QUBO**
CACE   1ST *with Pedro Ripper, Joshua Pulsipher, Joaquim Dias Garcia, Nelson Maculan & David E. Bernal Neira*

sep '23   **QUBO.jl: A Julia Ecosystem for Quadratic Unconstrained Binary Optimization**
ARXIV   1ST *with Pedro Ripper, Tiago Andrade, Joaquim Dias Garcia, Nelson Maculan & David E. Bernal Neira*

aug '22   **Computation for Architecture, hybrid visual and textual language: Research developments and considerations about the implementation of structural imperative and object-oriented paradigms**
IJAC   2ND *with Gonçalo Castro Henriques, Victor de Luca Silva, Luca Rédua Bispo & João Victor Fraga*
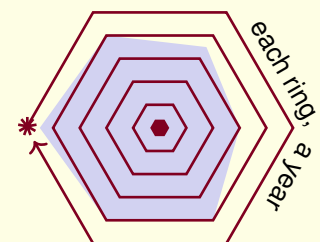
CONTACT /

 pedromxavier
in pedro-maciel-xavier
✉ pmacielx@purdue.edu
✉ pedrox@cos.ufrj.br
 pedro.ελ

LANGUAGES /

🇧🇷 native
🇬🇧 fluent
🇪🇸 intermediate
🇩🇪 basic

TREE RINGS /

each ring, a year

power systems
machine learning
✳ optimization
software engineering
quantum computing
architecture

∗ ongoing   ⊛ incoming