

# Guruprerana Shabadi

Master's Student in Computer Science

École Polytechnique, France

[guruprerana.github.io](https://guruprerana.github.io)

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Research interests: Program synthesis, formal methods, reinforcement learning, control, cyber-physical systems

## Education

- **École Polytechnique and Université de Paris Cité** Paris, France  
*M.S., Computer Science (MPRI)* Sep. 2022 - Present
- **École Polytechnique** Palaiseau, France  
*B.S., Mathematics and Computer Science* Sep. 2019 - Jun. 2022
  - GPA: 4.2/4.3, Summa cum laude

## Experience

- **Institute of Informatics, University of Warsaw** Warsaw, Poland  
*Research Intern* Apr. 2023 - Aug. 2023
  - Advisor: Nathanaël Fijalkow (Automata Theory Group)
  - Topic: Programmatic reinforcement learning
- **INRIA** Paris, France  
*Research Intern* Jan. 2022 - Mar. 2022
  - Advisor: Caterina Urban (ANTIQUÉ Team)
  - Topic: Static analysis of data science notebooks using abstract interpretation
- **Department of Computer Science, École Polytechnique (LIX)** Palaiseau, France  
*Research Intern* Jun. 2021 - Dec. 2021
  - Advisor: Sergio Mover (Cosynus Team)
  - Topic: Accounting for communication delays arising in cyber-physical systems
- **Fasfox** Paris, France  
*Software Developer Intern* Jun. 2020 - Aug. 2020
  - Worked on the development of an application called ‘Concrete Dispatch’ used by large scale construction sites. Involved in all aspects of development including frontend and backend.
  - Technologies used: Django, Vue.js, Android

## Publications

- Luca Negrini, **Guruprerana Shabadi**, Caterina Urban. Static Analysis of Data Transformations in Jupyter Notebooks. In SOAP at PLDI 2023.

## Awards

Global Undergraduate Awards - Global Winner in Computer Science (recognized for work on <i>Static Analysis of Data Science Notebooks</i> )	Sep. 2022
Labex DigiCosme Scholarship	2022-2023
Excellence Scholarship from the École Polytechnique Foundation	2019-2022
DGA Scholarship from the French Directorate General of Armaments	2021-2022

## Projects

- **Anemone** Paris, France  
*Entrepreneurial Project* Oct. 2020 —
  - As the CTO, I lead the application development team at Anemone
  - We are a team of 4 student entrepreneurs building a socio-professional networking platform tailor-made to the needs of the artistic industry

## Skills

**Languages:** C/C++, Python, Coq, Haskell, OCaml, JavaScript, Java, HTML-CSS, x86 Assembly

**Frameworks:** Django, Vue.js, Android, React, React Native, Pandas, Scikit-learn, Tensorflow, Qt

**Spoken languages:** English (native), French (advanced working proficiency), Kannada, Hindi

## Volunteer Experience

- **Developer Student Club of École Polytechnique**  
*Developer Student Club Lead* Sep. 2020 - Jun. 2021
  - As a part of the Google DSC Program, led a team in organizing educational events, workshops, and competitions about various platforms and technologies, including cloud and AI.
- **Student Body of École Polytechnique**  
*Chief Financial Officer* Jun. 2020 - Jun. 2021
  - I was incharge of accounting, and gathering of sponsorships and funds, in addition to organizing the social and cultural life on campus.