

Yiming Qin

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LTS4 - EPFL, Lausanne, Switzerland




ABOUT ME

I am a Ph.D. candidate at EPFL, passionate about generative models, especially for their application to graphs, and their potential in drug discovery and beyond. My interests also span enhancing control over generative models, graph machine learning, and neural network explainability.

EDUCATION

- **École polytechnique fédérale de Lausanne (EPFL)** Feb. 2023 - Feb. 2027
Ph.D. Candidate in Computer and Communication Sciences (EDIC) Lausanne, Switzerland
 - Research Interests: Generative models, Graph machine learning, Drug discovery, Explainability.
 - Supervisor: Pascal Frossard
- **Shanghai Jiao-Tong University (SJTU)** Sept. 2021 – Feb. 2023
ME in Information Engineering, School of Electronic, Information and Electrical Engineering (SEIEE) Shanghai, China
 - Grade: 3.98/4.00
 - Supervisor: Yanfeng Wang & Ya Zhang
- **École Polytechnique (X)** Mar. 2019 – Aug. 2021
Ingénieur diplômé de l'École polytechnique (Master level), dual degree program with SJTU Paris, France
 - GPA: 3.80/4.00
- **Shanghai Jiao-Tong University (SJTU)** Sept. 2016 – Sept. 2020
BE in Information Engineering, Department of SJTU – Paris Elite Institute of Technology (SPEIT) Shanghai, China
 - Grade: 3.92/4.00

PUBLICATIONS

- [2024] Yiming Qin, Manuel Madeira, Dorina Thanou, Pascal Frossard. **DeFoG: Discrete Flow Matching for Graph Generation** In *Arxiv Preprint*. [
- [2023] Yiming Qin, Clément Vignac, P Frossard. **Sparse training of discrete diffusion models for graph generation** In *Arxiv Preprint*. [
- [2023] Yiming Qin, Huangjie Zheng, Jiangchao Yao, Mingyuan Zhou, Ya Zhang. **Class-balancing diffusion models** In *Conference on Computer Vision and Pattern Recognition (CVPR)*. [

WORK EXPERIENCE

- **Teaching Assistant** Sept. 2023 - Now
EPFL, Lausanne
 - Introduction to Programmation & Network Machine Learning & Probability and Statistics.
- **Quantitative Researcher** Oct. 2022 - Jan. 2023
Luoshu Investment Company, Shanghai
 - Automated factor filtering/building pipeline.
 - Overall survey on the lead-lag effect and developed corresponding trading strategies.
- **Research Assistant** Mar. 2021 - Aug. 2021
École Normale Supérieure (ENS), Paris
 - Propose a multi-task model that produces robust representations for noisy microscopic cell sequences.
 - Introduce SynDiv, a well-labeled synthetic dataset simulating the cell splitting process.
 - Propose a quantitative evaluation pipeline and a global metric to systematically compare methods for extracting dynamical features from unlabeled video microscopies.
- **Developer** June. 2019 - Sept. 2019
Luoshu Investment Company, Shanghai
 - Develop a general back-testing and factor analysis platform by merging three existing platforms.

SKILLS

- **Software skills:** Python, Pytorch, LaTeX, Git, RunAI, Docker, Java, C++, MATLAB
- **Languages:** English (TOEFL 104), French (TCF C1), Mandarin (Native), Japanese (Beginner)

EXTRACURRICULAR ACTIVITIES

- **OxML (2024):** OxML Summer School (AI for Global Goals).
- **LoG (2023):** Learning on Graphs Conference local meetup.

HONORS AND AWARDS

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|---|------|
| • EDIC Fellowship
<i>EPFL</i> | 2023 |
| • 3rd place in the Huawei Research France Competition (Transfer learning on home network)
<i>Huawei</i> | 2021 |
| • 2nd place in the Graph Drawing Contest 2021 (Live Challenge: Automatic)
<i>Graph Drawing Contest</i> | 2021 |
| • Meritorious Winner of Mathematical Contest in Modeling (Top 7%)
<i>Mathematical Contest in Modeling</i> | 2019 |
| • Shanghai Jiao Tong University SMC Scholarship
<i>SJTU</i> | 2018 |
| • Shanghai Jiao Tong University B Grade Merit Scholarship for the 2016-2017 academic year
<i>SJTU</i> | 2018 |
| • SPEIT ARDIAN Scholarship for the academic year of 2016-2017
<i>SPEIT - SJTU</i> | 2017 |

ADDITIONAL INFORMATION

Interests: Singing (A Cappella/Choir), Painting, Writing, Reading, Foodie, Frisbee and Swimming.