

Education

- 2022 - present **ETH, Zürich, Switzerland**
- Pursuing a Master of Science, graduating in Summer 2024
 - Majoring in computer science and specializing in *Visual and Interactive Computing*
 - Minorng in *Machine Learning*
- 2019 - present **École Polytechnique, Paris, France**
- Pursuing a postgraduate engineering degree in one of France's leading schools of science and engineering, to be conferred in 2023
 - Majoring in computer science and taking part in the advanced program *Image, Vision and Machine Learning*
 - Led a six-month research project on optimized signed distance fields GPU rendering
- 2017 - 2019 **Lycée Faidherbe, Lille, France**
- Took a two-year intensive university-level preparation in mathematics and physics to prepare for highly competitive nationwide exams
 - Was admitted to most of France's top-ranking schools including Mines ParisTech, École Centrale Paris, École Normale Supérieure and l'École Polytechnique

Work Experience

- March 2022 - Aug. 2022 **Research intern (Internship), Inria, GraphDeco Team, Sophia-Antipolis, France**
- Took part into a full-time research project supervised by George Drettakis investigating *Neural Radiance Fields (NeRF)* and ways of editing them. This project was made possible thanks to rich and extensive discussions with multiple academic collaborators both within and outside the lab
 - Contributed to another PhD's work resulting in a publication released at SIGGRAPH Asia 2022: *Neural Point Catacaustics for Novel-View Synthesis of Reflections*
 - Presented several state-of-the-art advances to the team during reading and group meetings
- June 2021 - Aug. 2021 **Computer Vision Engineer (Internship), Wemap, Montpellier, France**
- Developed a robust monocular *SLAM* pipeline supporting 360-degree cameras based on indirect methods
 - Devised a state-of-the-art prototype of visual positioning system for large datasets of indoor locations
- Oct. 2019 - March 2020 **Teacher and Research Assistant (Internship), Institute of Technology of Cambodia, Phnom-Penh, Cambodia**
- Provided 40 second-year Cambodian students with a preparation in mathematics and physics for l'École Polytechnique's entrance exam
 - Wrote a 280-page original textbook for the corresponding programme
 - Organized presentations and workshops on computer science in the robotics laboratory
 - Led a five-month research project on Reinforcement Learning in the robotics laboratory
- Oct. 2015 - Sept. 2017 **Software Developer, Artenpik, Lille, France**
- Contributed to the creation of an augmented-reality platform for street-artists
 - Developed an image-recognition solution for large datasets of artworks
 - Won two hackathon prizes including First Place at "*Happy Hacking Days*" in 2015

Languages

- French, native
- English, proficient: TOEFL iBT® Test - 111/120 (reading: 28, listening: 27, speaking: 28, writing: 28)
- German, professional

Skills

- Software development: C, C++, Python, Java, C#, Rust (beginner)
- Web development: JavaScript, Typescript, React, Node.js, Express.js, Django, SQL, Hugo
- Computer Graphics: OpenGL API, Vulkan API (beginner), GLSL, CUDA, GPU architecture, rendering pipelines, ray tracing, game development with Unity
- Computer Vision: image processing, multiple view geometry, SLAM and SfM pipelines
- Machine Learning: PyTorch, Scikit-Learn, Topological Data Analysis, Graph Representation Learning, NLP, Reinforcement Learning

- Network Engineering and computer architecture: Internet and IoT protocols, CPU architecture, memory hierarchy, cybersecurity, compilation
- Tools: Unix/Linux, L^AT_EX, CMake, Git, Continuous Integration (CI), Inkscape
- Driving licence

Interests & Activities

- Have played the guitar for 9 years: lead guitarist in a rock band
- Practicing mountain running, trail running, road cycling and orienteering; taking part in nationwide competitions
- Proudly involved in the Cooking Society (*Ratatouille*), Arts Society (*Bureau Des Arts*), Mathematical Society and Computer Society (*Binet Réseau*) of l'École Polytechnique
- Organised a one-week trip in Italy for 64 schoolmates
- Supervised the activities and routes of a two-day adventure race with 200 participants