





Adrián Sager La Ganga

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EDUCATION

Master of Science, Computational Science & Engineering, EPFL, Final GPA: 5.57/6.00 **Sep. 2020 — Feb. 2023**
Bachelor of Science, Computer Engineering, Polytechnic University of Turin, Final grade: 110/110 **Oct. 2017 — Jul. 2020**

EXPERIENCE

Software Engineer **Jan. 2023 — Present**
AI Medical Zürich, Switzerland

IBM Research Intern **Aug. 2023 — Jan. 2024**
IBM Research Zürich Zürich, Switzerland

- Explore hybrid GNN and transformer architectures for fraud detection

IBM Master Thesis **Sep. 2022 — Jan. 2023**
IBM Research Zürich Zürich, Switzerland

- Generated sustainable chemical reactions with language models (LMs) for potential use in the team's *RXN for Chemistry* product


System Engineer Intern (Full-time) **Mar. 2022 — Sep. 2022**
Beyond Gravity Zürich, Switzerland


- Improved C++ rover simulation software for ESA's ExoMars mission:
 - Devised novel numerical method for wheel-soil interaction, improving its convergence
 - Achieved $> \times 3.0$ speedup with SIMD matrix operations, better code structure, and concurrency
 - Enabled experimentation on HiRISE Mars terrain data by developing a Gaussian process regression (GPR) denoising algorithm


Data Scientist Intern (Full-time) **Mar. 2020 — May. 2020**
Dynatrace Hagenberg campus (Linz), Austria

- Presented Python-to-Java pipeline to translate the 7-person team's research into production


AWARDS & PUBLICATIONS


2023  P. Oettershagen, **A. Sager La Ganga**, M. Gouy du Roslan, *et al.*, 'DynRPAT: A Novel Parametric Analytical Tool to Efficiently Simulate High-Speed or Low-Gravity Locomotion Conditions for Planetary Exploration Rovers', *17th ASTRA Symposium*, 2023.


2022  **Young Talents Fellowship** from the Swiss *National Centres of Competence in Research – Catalysis* foundation


2019  *European Innovation Academy*, 3-week startup competition (~200 participants):

- **Awards**: **U.S. Provisional Patent** from Nixon Peabody | **Top Team** | *HAG Venture Accelerator award*
- Selected as CTO in a team of 5 ideating and presenting a prototype for safer space travel, including an investor pitch

 Eta Kappa Nu member (electrical engineering and computer science honor society)

2018  Awarded *Like@Home* hackathon *Reply* prize: Innovate in 24h in a team of 5 using Google's Voice Kit

2017  **Scholarship ToPolito** (**top 17** best performing international engineering students)

 **Young Talents Project** member (**top 5%** best performing engineering students)

PROJECTS & RESEARCH

Computer Vision to stabilize video of a fly's neural activity, Ramdya Lab (EPFL), 6.00/6.00 **Sep. 2021 — Jan. 2022**
• Created $\times 770\%$ faster and $\times 186\%$ lower MSE transform than baseline
github.com/Sager611/stabilize2p

Deep Learning to predict star properties, Laboratory of Astrophysics (EPFL), 6.00/6.00 **Mar. 2021 — Jul. 2021**
• +20% performance over baseline by employing a Locally Connected Network with uncertainty estimation

CNN inference on FPGA, Computer Architecture course (Polytechnic University of Turin), 30/30 cum laude **Mar. 2019 — Jul. 2019**
• Optional extra project in a team of 3 with a topic of our choosing
• Programmed 6 CNN layers for inference in an FPGA: 2D Convolution, Max/Mean Pooling, and Sigmoid/ReLU/Tanh activations

LANGUAGES

• English (fluent) • Italian (fluent) • Spanish (native) • German (B1.1) • French (B1.1)

SKILLS

Programming • Python for AI (PyG/Keras/transformers/sklearn/xgboost/OpenCV) • Backend (AWS/Docker/SQL)
• C/C++ • Frontend (Node.js/HTML)