MALLORY WITTWER

MATERIALS ENGINEER | DATA SCIENTIST | WEB DEVELOPER

26/05/1994

La Chaux-de-Fonds

Swiss

CONTACT

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MalloryWittwer

PORTFOLIO

mallorywittwer.github.io

SKILLS

Python • Ruby • Javascript
Flask • Rails • React
HTML5 • CSS • SQL
Numpy • Pandas
Matplotlib • Seaborn
Scikit-learn • Tensorflow
Scikit-image • OpenCV
Dash • D3.js • Three.js
Github • Heroku • Blender

LANGUAGES

FR - Native language
EN - Full proficiency
DE - Basic level

INTERESTS

Rock climbing

Sustainability

3D Graphics

EDUCATION

Full-stack web development Bootcamp
Le Wagon - Renens VD (CH) Dec 2021

Certificate in Data Science and Machine Learning
EPFL Extension School - Lausanne (CH) Oct 2018

Master's degree, Materials Science and Engineering
EPFL - Lausanne (CH) Mar 2018

EXPERIENCE

RESEARCH ASSOCIATE

Nanyang Technological University, Singapore | Dec 2018 - Aug 2021

- Conducted research in machine learning applied to microscopy. Developed a new high-throughput imaging technique that significantly reduces the cost and time of crystal orientation mapping. Results were published in npj Computational Materials (2022).
- Developed a self-supervised machine learning algorithm for high-throughput, automated image segmentation of crystal grain structures. Results were published in Materials Characterization (2021).
- Designed and created a GUI software in Python for visualizing and manipulating large data sets of 4D microscopy images.
- Carried laboratory work (chemical handling, metallography, electron microscopy).
- Presented research at scientific conferences (ICMAT 2019, MS&T 2019).
- Supervised the final year project of a student.

INTERN

CSEM, Switzerland | Sep 2017 - Feb 2018

- Conceptualized and fabricated flexible piezoelectric actuators for soft robotics.
- Developed a structure-property model of actuator components.

INTERN

European Space Agency (ESA), Netherlands | Mar 2017 - Aug 2017

- Carried an experimental study on high-performance polymers for space applications.
- Developed a model to describe the mechanical properties of 3D-printed components.

VOLUNTEERING

Creating interactive scientific web applications

- View projects on mallorywittwer.github.io. 2022

World Policy Center | Global Climate Law Repository

- Writing Python web scrapers to gather data on climate laws worldwide. 2021