

# LILA CUNGE

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✅ J-2 Visa and EAD

Medical Imaging Engineer with experience in AI and MRI image processing, including a research engineer role, I am passionate about medical innovation and eager to develop new skills. I thrive on challenges and look forward to contributing to cutting-edge projects in Los Angeles.

## PROFESSIONAL EXPERIENCE

- **Research Engineer in MRI Reconstruction** 📍 Grenoble Institute of Neurosciences  
NOVEMBER 2024 -  
Develop an innovative deep learning-based method for ultra-fast MR fingerprint reconstruction. Design and implement neural network architectures using TensorFlow and PyTorch, combining with MR physics priors to optimize image reconstruction.
- **Research internship in medical signal processing** 📍 ICONEUS, Paris  
FEBRUARY 2024 - AUGUST 2024  
Process functional ultrasound image and signal with Python. Denoise signal using different methods. Compare groups of subjects to establish differences in brain functional connectivity.
  - Machine learning algorithm (ICA) / Deep learning (CNN)
  - Statistics for data analysis (e.g. : TFCE, permutation test...)
  - Data pre-processing and registration
- **Research project** 📍 CEA, Grenoble  
SEPTEMBER 2023 - JANUARY 2024  
Estimate blood pressure from optical data using machine learning and deep learning models.
  - Applied mathematics for signal processing (time series).
  - Machine learning and deep learning algorithms.
  - Python / Git
- **Medical imaging internship** 📍 Institute of Biophysics and Biomedical engineering, Lisbon  
MAY 2022 - JULY 2022  
Research and analysis of new MRI biomarkers to improve diagnosis of pediatric multiple sclerosis.
  - Python / Matlab and its extension SPM / FSL
  - Data anonymization (DICOM/NIfTI processing)
  - Image processing (registration, normalization, correction)
  - Lesion segmentation
  - Analysis and synthesis of results

## SCIENTIFIC CONTRIBUTIONS

*Contribution to scientific papers :*

Coudert, T., Delphin, A., Marçal, M. S. M., Barrier, A., **Cunge, L.**, Legris, L., Warnking, J. M., Lemasson, B., Barbier, E. L., & Christen, T. (2025). MR-WAVES: MR water-diffusion and vascular effects simulations. *Magnetic Resonance in Medicine*, [under submission]

*Participation in conferences :*

Barrier, A., **Cunge, L.**, Coudert, T., Delphin, A., Legris, L., Oudoumanessah, G., Lamalle, L., Forbes, F., Doneva, M., Lemasson, B., Barbier, E. L., & Christen, T. (2025). MARVEL MRF for Contrast-free Blood Volume, Microvascular Properties, and Relaxometry Mapping: Initial Tests in Volunteers and Stroke Patients. ISMRM 2025, Power Pitch Digital Poster.

## EDUCATION

- Medical imaging engineering school

SEPTEMBER 2020 - SEPTEMBER 2024

Equivalent to a Master's degree. Courses in image processing, medical imaging methods, and AI (the full program is detailed [here](#)). International program (courses taught in English). GPA = 4.

 National Polytechnical Institute of Grenoble, Phelma

- Master of science in management

SEPTEMBER 2022 - SEPTEMBER 2023

Double-diploma (equivalent to a double master's degree) in international management and marketing within the "Grande Ecole" program. Courses in management, marketing and start-up strategy. GPA = 3.8. Final internship at Becton Dickinson as a product owner. Manage product strategy and agile development to align market needs with business objectives.

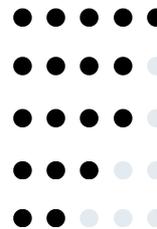
 GEM (Grenoble Ecole de Management), Grenoble

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## SKILLS

### TECHNICAL SKILLS

- MS office suite
- **Python** : OpenCV, scikit-learn, Pandas, TensorFlow, Pytorch
- Matlab
- C language
- SQL



**Coursera certification:** [Convolutional Neural Network](#) of DeepLearning.AI  
[Introduction to AWS Cloud](#) of AWS  
[AWS Cloud Technical Essentials](#) of AWS

### SOFT SKILLS

**Adaptability & Quick Learning:** Successfully adapted to new working environments through my double degree program, which involved adjusting to different academic cultures and workflows.

**Team collaboration:** I have learned to communicate and work effectively with various teams to achieve common goals during my studies.

**Problem solving:** My various research experiences have enabled me to develop approaches for solving complex problems in a structured way.

### LANGUAGES

French : Native

English : Level C1. **TOEIC** (Test of English for International Communication) : **920**

Spanish : Level B1

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## ASSOCIATION

2021 - 2022: Led a team responsible for managing communications with university students across multiple channels. Ensured effective and consistent messaging.