Testimony from an alumni (senior)

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November 14, 2025





Overview of my experiences

PhD in nuclear physics (2017–2020)

Thesis title: Modeling the (proto)neutron star crust: to-ward a controlled estimation of uncertainties (F.Gulminelli)



Figure: Vela pulsar jet. Credit: NASA/CXC/PSU/G.Pavlov et al.

Skills:

- Statistical analysis and modeling
- C/C++ and Python
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Al engineer in the industry (2021–2025)

Design, training, and deployment of deep learning models into products:

- 4 years implementing deep learning pipelines to automate video editing tasks (startup, 2021 – 2025)
- Few months building computer vision models for maritime applications (startup, 2025)

Skills:

- Deep learning (computer vision and multimodal models)
- MLOps and DevOps
- Technical writing and communication
- Adaptability

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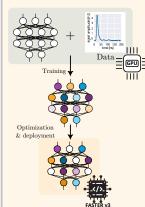
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Research engineer at CNRS (2025–present)

Deep neural networks in FASTER v3 for online data analysis and enhanced data acquisition.



Getting into the industry after my PhD

Why?

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How?

- Target role: Al engineer (data scientist)
- Skill building:
 - Self-study (books, online courses)
 - Volunteering and side projects
- Interview preparation:
 - Focus on transferable skills, not just the PhD topic
 - Practice coding exercises and technical/scientific questions

Getting back to public research as an engineer

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- Seeking purpose and meaning in long-term, impactful research

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How?

- Leverage existing connections in public research institutions
- Translate industry experience into valuable skills for research

Final words

Conclusions

- Physics PhDs have the right tools to enter industry but selling those skills can be challenging
- Timing and luck play a role (e.g., entering data science when the market is open)
- Some of the most talented colleagues I met in industry were physics PhDs (perhaps I'm biased here;))

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Contact

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Questions?