

Cover Letter

I'm Murali Manohar, a Masters student in Computational Linguistics with two years of industrial experience as a Data Scientist. I worked for industry giants like Microsoft and Novartis in both the domains, Vision, and NLP. I'm always interested in automating stuff and hence strive to be an end-end data scientist. My research interests are, not limited to, Unsupervised MT, Exploiting Language Models for data generation, and cross-lingual knowledge transfer.

Two research groups changed the landscape of Unsupervised Machine Translation (MT). One, the Facebook AI (FAIR) group, and the second, IXA -NLP group. Fortunately, because of my interest in low-resource languages, I came across their work and ended up doing my undergrad thesis on Unsupervised MT. I contacted one of the professors to work in their lab. He said, yes, but only if I get enrolled in the Masters program and get funding through any scholarship. So, here I'm, an Indian, in Europe pursuing my Masters funded by the Erasmus Mundus program EMLCT.

I'm thankful to have my career events connected with strong reasons. I started Machine Learning **because** I was intrigued by my undergrad professor, Dr. Satyendr Singh, building tools without any domain expertise. The absence of linguistic tools in my native language served as a purpose to create such tools. Noticing that most NLP research in India was spearheaded by the LTRC lab in IIIT-Hyderabad, I emailed Prof. Dipti Misra if she could help me build linguistic tools in my language. She agreed and we were able to publish our work in CICLing 2019 as we handled the agglutinative nature of Dravidian languages. This paved way for my love towards under-resource setting. When I was researching about cross-lingual transfer & synthetic data generation for building tools in low-resource languages, I came across "Back Translation" and how it lubricated the Unsupervised process in Machine Translation. I ended up doing my thesis on this topic.

It was 2018 ending, Transformers were just released. Deploying ML models into production was a sketchy thing for many local startups/companies. I was curious to know how the companies were able to convince clients of the black-box nature of ML models. Models' behaviour is not definitive. I wanted to check this out myself for a year and leave for Masters. So, I started working as a Data Scientist. Ideally, what should have been a 1-year industrial experience got extended to 2 years due to the pandemic. I'm grateful to have worked in both domains, Vision, and NLP for two big industry giants, Microsoft and Novartis. More than technical lessons, I evolved from the life lessons taught during this journey. One piece of advice I really embrace is *Failing Fast*.

While it may not be the best analogy, I am like the plant *Minari*. I survive and evolve from any situation. Most people who worked with me are always in touch and loved

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what I did. They love the vibe I bring to the workplace. I hosted meet-ups, reading groups, and hackathons. Hoping to share the same spirit in my future endeavors.