Erasmus+ Erfahrungsbericht

Gastland	Italien
Gasthochschule	Politecnico di Milano

Erfahrungsbericht (mind. 1 Seite):

Participating in the Erasmus Exchange program at Politecnico di Milano was indeed a transformative experience, and my academic and personal life was significantly enriched. Polimi had been a university of great interest to me, and that was majorly because of their rich expertise in Electronics Engineering. While I had an initial desire to pursue my master's degree at the university, the highly competitive admission process proved to be a great challenge. When I finally got an opportunity to study at Polimi through the Erasmus program while I pursued my master's at TU Chemnitz, I grabbed it without hesitation. That provided me with an invaluable opportunity to be part of a world-class academic environment and a prestigious institution that is in line with my academic goals.

During the exchange I had a chance to take a series of courses at the Faculty of Electronics Engineering. They were Artificial Neural Networks & Deep Learning, Applied AI in Biomedicine, and Model Identification and Data Analysis. This last one consisted of two modules: Statistical Learning for Automation Systems and System Identification & Prediction. My goal was to gain a deeper understanding of advanced AI methods and their application, especially in biomedicine. These courses allowed me to get a comprehensive introduction to machine learning, statistical modelling, and system identification, which are crucial for me. I realized that I need these skills to advance my career in the field of electronics and biomedicine applications with AI.

I have taken many courses during my academic career, but Artificial Neural Networks and Deep Learning caught my eye the most because of its strong focus on real-world applications. I was able to develop and test AI models in practice because to the course's thorough understanding of neural network architectures, optimisation techniques, and deep learning frameworks. The practical learning method differed from the theoretical technique employed at the Technical University of Chemnitz. The educational process became more engaging in this way. There were two major projects for the course. In one of them, I classified blood cells in microscopic images using a convolutional neural network (CNN). I become more knowledgeable about medical image processing. The second project was called Mars Terrain Segmentation Using Deep Learning. I applied semantic segmentation methods to the analysis of satellite images. I deepened my knowledge in the field of planetary exploration. The projects improved my skills in data pre-processing, model training, and assessment. They confirmed my interest in AI-driven innovation in the fields of biomedicine and aerospace applications.

My experience at Polimi played a pivotal role in sharpening my research focus, giving me a better grasp of artificial intelligence technologies applied in biomedical engineering. Through rigorous coursework and exposure to acclaimed faculty members, I gained a keen appreciation for AI-based approaches, which eventually determined the trajectory of my master's thesis. But the experience at Polimi was not without difficulty. The course load was far more challenging than I had been used to at TU Chemnitz, with numerous assignments, intricate group work, and challenging exams needing to be completed within short time frames. The fast pace and high expectations too often were more than I could handle, and although I worked diligently, the level of difficulty of the studies was reflected in my grades in certain classes. Nevertheless, this experience was invaluable in strengthening my time management skills, resilience, and adaptability to a more challenging academic system. It also reinforced my determination to excel in AI-driven research and its interdisciplinary applications in engineering and healthcare, equipping me with the necessary skills to navigate complex real-world challenges in my field.

My experience at Polimi was a life-changing moment that went beyond studies. Being an introvert, I found it difficult at first to bond with new individuals, but I gradually took the initiative to interact with international and indigenous students. Being involved in social activities and group projects opened my eyes, nurtured my appreciation for the variety of cultures, and improved my capacity to work in multicultural settings. This experience proved to be as enriching as my educational background, developing my interpersonal skills and instilling in me a global perspective needed in international research and professional partnership.

Building ties with instructors who shared my interest in research issues was one of the best parts of my time at Polimi. Through these contacts, I was able to locate a professor to oversee my master's thesis, which not only allowed me to conduct research on a topic I'm interested in but also established the course of my future academic career. Additionally, throughout my time at Polimi, I was able to expand my professional network in the fields of biomedical engineering and artificial intelligence, which I am confident will be essential to achieving my career goals.

When I think back on my Erasmus exchange, it was a genuinely life-changing event. I had the exceptional chance to work with renowned professors and peers, expand my technical knowledge, and obtain practical experience while attending one of Europe's top technical universities. Despite my eclectic background, it also reaffirmed my confidence in pursuing AI-driven research, especially in biological applications, outside of the classroom. This experience has been crucial to my future since it has given me the information, abilities, and contacts I need to make a significant contribution to the field. I will always be appreciative of the chances it has given me and the avenues it has made for my professional and academic development.