

## Statement of Purpose

My name is **Pratyush Jha**, and I am writing to express my strong interest in pursuing the **Master of Science in Data Science program at FAU Erlangen**. My undergraduate studies in Computer Science and Engineering, along with my passion to solve real-world problems, make this program an ideal fit for my academic and professional aspirations.

During my Bachelor of Technology at Guru Gobind Singh Indraprastha University (IPU), Delhi I studied subjects like Data Structures, Algorithms Design and Analysis, and Artificial Intelligence which created curiosity to explore the potential of data analysis. My strong academic background is further complemented by strong academic's results - 8.77 CGPA (German score: 1.62) and my proficiency in English with **IELTS Overall Band Score: 7.0**.

My final year project, titled "Motion Control: Camera-Based Body Movement Input Device Simulation," involved applying computer vision techniques to develop a novel human-computer interaction system. This project allowed me to understand the practical applications of data science and further increased my desire to pursue a career in this field.

Beyond academics, I actively participated in extracurricular activities that enhanced my communication and teamwork skills. As the Social Media Manager for Innovision, the Photography Society of GGSIPU, I was responsible for content creation and managing social media handles of the society.

I chose Germany for my Masters in Data Science for several compelling reasons. Firstly, Germany boasts world-renowned universities with cutting-edge research facilities and top-notch faculty in the field of data science. Moreover, Germany's vibrant tech ecosystem and thriving job market offer ample opportunities for networking and securing internships. Lastly, the multicultural environment and high quality of life make it an ideal destination for personal and academic growth.

The curriculum at FAU provides comprehensive understanding of data analytics, artificial intelligence, machine learning and statistics. The inclusion of modules which help in understanding how to create complex data models and apply them to different use cases which will help in practical applications. The electives offered such as optimization, Mathematical theory / Fundamentals of data science, Databases and knowledge representation, Machine learning / Artificial intelligence, Simulation and numerics gives numerous choices to select from both in research and practical applications.

During my journey in data science, I'll acquire a versatile skill set encompassing statistical analysis, programming proficiency, and data visualization techniques. I'll delve into machine learning algorithms, mastering the art of predictive modeling and pattern recognition to extract valuable insights from complex datasets.

Additionally, I'll gain expertise in data manipulation and cleaning, ensuring the accuracy and reliability of my analyses. Ethical considerations and privacy concerns will also be integral parts of my learning, guiding me to responsibly handle sensitive data. Ultimately, armed with these skills, I'll be equipped to unravel actionable insights, drive informed decision-making, and contribute meaningfully to various industries and societal challenges.

### Conclusion:

I am confident that the course covers areas such big data modelling, machine learning, and simulation methods and artificial intelligence at FAU Erlangen which along with my skillset and knowledge will help me achieve my goals and explore the field of data science. The research facilities and interdisciplinary approach with other institutions help me understand the things from a broader perspective and apply my learnings to the best.

**Thank you for considering my application.**

Sincerely,

**Pratyush Jha**