STATEMENT OF PURPOSE

I am **Swaranjali Arvind Mahadik**, an Indian national from Islampur, Maharashtra. I'm writing this Statement of Purpose to articulate my purpose and motivation for pursuing my studies in Germany, having secured admission into the **4 Semester Master in Computer Science at the University of Freiburg** for the 2024-25 intake.

Academically, I have completed my Bachelor of engineering degree in Computer Science from Guru Savitribai Phule Pune University, Pune, India, completed in 2022 with a German grade of 1.34. During this phase, I honed my skills in various subjects, including Cloud Computing, Machine Learning, Discrete Mathematics, Object Oriented Programming, and Database Management System and got proficient in technical skills such as C, C++, Python, SCM Modules, Basic data structure and SQL and PL functionalities. I also completed my 12th class with a score of German grade of 2.06 in 2019 and successfully completed class 10th with German grade of 1.36 in 2016.

Though I have completed 16 years of my education in English as the medium of instruction, yet to evaluate my proficiency in English, I took an **IELTS** Test and secured an **overall Band score of 7.5 CEFR level C1**.

During my undergraduate I worked on a project titled "Cost efficient Data Storage using Data Privacy and Security". The core of the project involved developing an algorithm that compresses images with an encryption tag and embeds data for unified management. This approach enhances data storage efficiency across the cloud. The algorithm utilizes basic encryption and decryption techniques, employing RSA and DCT algorithms to compress and decompress images while securely embedding data.

Additionally, I completed a certificate course in C++ Programming by Knowledge Lit Careers Certificate Course and scored 84%. Alongside this technical certification, I Participated in One Day Workshop on i-Pro Program Stressing Success organized by Directorate of Technical Education, Maharashtra Chamber of Commerce, Industry & Agriculture. Furthermore, I actively participated in extracurricular activities. Notably, I took part as a Volunteer for the Inspire'18; a state level Technical event organised by Government Polytechnic Karad and also participated in the 60th National School Softball Championship from State Maharashtra.

With my studies, I was a part of an Internship Programs as well, in order to get the practical knowledge and application of Theoretical Study. At Wipro, India as an Intern, I successfully completed a project entitled JAVA/J2EE . Following this, as an Analyst/Software Engineer at Capgemini Technology Services, I worked on PL/SQL packages and procedures in Oracle. I gained experience with Appworx and Intellinum tools, performed inbound and outbound processes in a Warehouse Management System, and worked on sales order shipping for various legacy order types.

My bachelor's degree in computer science aligns seamlessly with my desire to pursue a master's in computer science, as it has equipped me with a solid foundation in programming, Machine learning and data management. These core competencies are essential for advanced studies and research in computer science. In pursuit of a master's degree, I aim to learn complex ML approaches, study emerging technologies, and improve my research skills. Furthermore, learning about cloud computing, big data analytics, and ethical considerations in computer science will be critical for dealing with the field's developing challenges.

As per findings from McKinsey Global research, India is expected to create 65 million new job opportunities through digital technology by 2025. Upon program completion and the application of my existing and ongoing expertise, my aim is to embark on a career as a Software Developer or Staff Engineer with renowned organizations such as Wipro, Infosys, Tata Consultancy, and Mahindra. I aspire to delve into research within the realm of Computer Science with the intention of making a substantial and impactful contribution to this dynamic field.

University of Freiburg stands as my unequivocal choice due to its rich heritage of academic excellence and distinguished faculty in the field of computer science. The university's commitment to cutting-edge research and innovation perfectly aligns with my aspirations to explore the intricacies of data-driven solutions. The specialized MSc in Computer Science program at the university allows students to choose from three different options: an Open Curriculum, a Specialization in Cyber-Physical Systems, and a Specialization in Artificial Intelligence. The emphasis on Master thesis provides a unique opportunity for in-depth exploration and application of learned concepts.

Enthusiastically, I anticipate the transformative journey that University of Freiburg Master's in Computer Science promises. Eager to immerse myself in its dynamic academic milieu, I am resolute in my commitment to academic excellence and future contributions to the tech industry. Hence, I am poised to embark on this exciting venture, driven by passion, purpose, and a steadfast dedication to my aspirations.

Sincerely,

Swaranjali Arvind Mahadik,