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Universität Potsdam
Am Neuen Palais 10
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Motivation Letter for IT-Systems Engineering

Dear Sir or Madam,

With this letter I hereby demonstrate my motivation and passionate for the Master of IT-Systems Engineering program at the Hasso-Plattner-Institut of the University of Potsdam. I appreciate this opportunity to introduce myself to your University and I perceive it as a perfect opportunity to support my application for the M.sc IT-Systems Engineering Program. My academic background in Information Systems from the University of Cologne has provided me with a strong foundation in both technical and managerial aspects of information systems, and I am eager to further enhance my knowledge and skills through your program.

During my undergraduate studies at the University of Cologne, I built a solid foundation in Information Systems. My core courses included Mathematics, Statistics, Data Structures and Algorithms, Theoretical Computer Science, Discrete Structures, and Database etc. Within this framework, I also chose electives such as Marketing, Data Visualization, Software Engineering, Data Science and Machine Learning. These electives not only broadened my knowledge but also enhanced my practical skills in various domains of Information Systems.

From April 2024 to August 2024 I completed the Capstone Project at Perfect-iD GmbH. I worked on a comprehensive project at Perfect-iD to develop a consumer-centric web service that processes supermarket invoice documents and provides user-friendly summaries. The service was designed to turn cumbersome financial data into insights accessible to end users. The whole project was developed using agile development methodology, using agile development tools Jira and Confluence for project development. My main role in the team was a back-end developer, I was involved in designing the product system architecture, back-end service development and writing the documentation. The most important back-end development, I used PostgreSQL to build the basic relational database, and then used the FastAPI framework to develop the API needed for the whole project, such as File management, user management, OCR-Service, AI-Service and so on. Through this project experience I was able to translate the theoretical knowledge I learnt in class into practical programming skills and technical solutions. As well as as being involved in all phases of the project, from requirements analysis, task assignment to progress tracking, it taught me how to divide and collaborate in a team.

My main research interests lie in the application of data analytics to information systems development. At the Hasso-Plattner-Institut of the University of Potsdam. I plan to further develop these interests through the Master of IT-Systems Engineering program. I noticed from the official website that the HPI not only offers relevant theoretical courses of interest to me, such as "IT-Systems Engineering Analyse", "Operating Systems & Information Systems Technology", "Software Architecture & Modeling Technology". There are also professional skills such as "Recht und Wirtschaft" were also prepared. So these courses are particularly suitable for me.

In addition, the Digital Engineering School at Hasso-Plattner-Institut is one of the best computer science programs in German universities. And since the latest CHE University Ranking 2024/25 confirms HPI's high ranking in the field of computer science in Germany, I chose Hasso-Plattner-Institut. Not only does it have an innovative degree program in computer science, but with a high student-to-faculty ratio, I can get better guidance. There are also overseas programs and extensive on-campus recruiting channels to help me better in my future career.

In conclusion, I am highly enthusiastic about the opportunity to study at the Hasso-Plattner-Institut of the University of Potsdam and to contribute to its academic community. I am passionate about the field of IT-Systems Engineering and am excited about the potential to further my research and career goals through your Master's program. Thank you for considering my application. I look forward to the possibility of discussing my application further and am available for any additional information you may require.

Sincerely yours,

Kesheng Guo
