Dear Madam/Sir,

Please accept the enclosed resume as my application for Bosch Career Event in Abstatt. I hold a Master’s degree in Computer Science, majoring in Cognitive Technical Systems with a CGPA of 1.4, from University of Freiburg and currently working as a Software Engineer in Automotive Industry. Given my background in machine learning and computer vision, experience and expertise in software development, I believe that I can make effective and useful contribution through this role.

As stated in my enclosed resume, I have more than 2 years of experience as professional software engineer. I am proficient in C++, Java, MATLAB and Python and have contributed to various industrial-grade as well as open source projects with my problem solving skills, encompassing applications across various domains, including machine learning frameworks, web, mobile, network, and computer graphics applications.

Since the past two years I have been involved in the projects related to automotive industry. Specifically related to driver assistance and automated driving,

I competed in Audi Autonomous Driving Cup 2016, representing University of Freiburg where our team programmed a scaled-down car to perform autonomous driving functions and I contributed heavily in development of various autonomous driving functions, including lane following, emergency braking, sensor data fusion and action planning.

Perception with Radar, LiDAR and Camera for perception in driver assistance tasks.

Software development in vehicle development for messtechnike.

I am also familiar with various frameworks including Robot Operating System (ROS), Automotive Data and Time-Triggered Framework (ADTF), OpenCV etc.

In the last 5 years, I have developed extensive theoretical and practical expertise and background of AI and ML, through academic projects to online courses to specialized Master’s Degree. My coursework as a Computer Science Masters student at University of Freiburg in Germany revolves around ML, AI and their applications in Robotics and Computer Vision. I am experienced with Caffe, TensorFlow and Torch 7 for deep learning and Scikit-learn and Weka for more classical machine learning. Moreover, I am also experienced in various domains including autonomous driving, robotics and computer vision with working knowledge of their challenges and requirements.

My aptitude in machine learning is also expressed through my Master Thesis: Semantic Segmentation of 3D Point Cloud Data using Deep Learning. This thesis addresses 3D scene understanding perception task for autonomous driving in urban environment using 64-channel LIDAR sensor by performing 11-class end to end semantic point cloud segmentation using ConvNets. This thesis elaborates the ability of CNNs to understand the scene using only the Lidar point cloud scans at a fine-grain level of each point.

Career Goal

Setting high standards

However I do not possess a PhD degree and given the competitive nature of this residency program, I believe I possess most of the skills acquired during a PhD degree, including publishing research work, organizing and keeping up with the latest research, conducting individual and collaborative research, critically analyzing publications, writing and reviewing research papers, contributing to and leading open source research projects, presenting research work and defending your research among the community.

Concluding, I believe I will be a good fit for the program as I am already familiar with the literature and researchers in the AI community, which will allow me to quickly comprehend and build upon the existing knowledge. Moreover, the attributes of conducting independent research with minimal supervision, quickly learning new technologies, strong background in mathematics, rapid implementation of proof of concepts and experience to integrate existing research into products should spark interest in my application. Thank you for taking time to review this application. I look forward to further correspondence.

Best regards,   
Farooq Ahmed Zuberi

Email: [farooqahmedzuberi@gmail.com](mailto:farooqahmedzuberi@gmail.com)  
Tell: [+4915216255435](tel:+49%201521%206255435) / [+4917685238383](tel:+49%20176%2085238383)