Dear Madam/Sir,

Please accept the enclosed resume as my application. With a Master’s degree in Computer Science, specializing cognitive technical systems, hands-on experience in designing machine learning algorithms and more than 2 years of experience in developing software solutions, I believe I can make effective and useful contribution to your company.

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 in academic and corporate research 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.

As stated in my enclosed resume, I have 2 years + experience of professional software development. I am proficient in C++, Java, MATLAB and Python. I have contributed to various projects with my problem solving skills, encompassing applications across various domains.

Automotive Industry.

2 years in automotive industry master thesis audi cup radar and vehicle monitoring

I am proficient in C++, Java, Python and Matlab and this proficiency is reflected in various projects throughout my academic and non-academic career. 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. Moreover, I am also familiar with various frameworks including Robot Operating System (ROS), Automotive Data and Time-Triggered Framework (ADTF), OpenCV etc., along with various in-house tools used within Bosch. Various functions.

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Moreover, I am also experienced in various domains including autonomous driving, robotics and computer vision with working knowledge of their challenges and requirements. Having worked as software engineer, I am hands on with C++, Java, Python and Matlab.

Previously, I have worked extensively with development of web and cloud-based mobile applications. I am also familiar with computer graphic libraries like DirectX and OpenGL, network applications using cloud-server and peer-to-peer architecture and using operating system concepts like multi-thread and multi-processing. Along with using Machine Learning frameworks, I am also experienced in development of ML frameworks, with contribution to Auto-Weka and Caffe repositories. Being hands on with the principles of software engineering, requirements gathering and software testing, I can adapt to new technologies, programming languages and frameworks and prepare prototypes and proof of concepts fairly quickly.

Career Goal

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. This enabled me to indulge and gain relative research experience in AI. Participation in academic seminars and research assistantships aided me in developing the skills for scientific writing, analytical and systematic analysis of research studies and presentation and organization of scientific research. In order to keep up with the rapid progress in ML community, I participate regularly in AI reading groups, seminars and online avenues. I am experienced with Caffe, TensorFlow and Torch 7 for deep learning and Scikit-learn and Weka for more classical machine learning.

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. Apart from the Master Thesis, my research record is fairly precise, with two conference papers including my Bachelor thesis and course project work in Bachelor’s degree.

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

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I am applying for AI residency because I believe I will be a perfect fit for this residency program, as it aims to enable young and highly motivated fellows with strong background in AI and ML to work alongside successful and established AI researchers and practitioners to conduct state of the art research. I believe this residency can provide me the perfect opportunity to polish my technical and analytical skills, collaborate and learn from relevantly experienced peers to excel and establish a career as a competent researcher and AI practitioner.