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Dear Sir/Madam,

My name is Khalid and I come from Egypt. I started my Masters joining the Communication and Multimedia Engineering (CME) program at the Friedrich-Alexander University in Erlangen on October 2014 and defended my dissertation in June 2017. Currently I am working as a full time research engineer at the Bright Band Department in Fraunhofer IIS.

Given the fact that Deutsche Bahn is one of the largest transport company in the world, it would be a great milestone in my career as an engineer to join your company. From the experience point of view, I have been working at the Bright Band department in Fraunhofer IIS on several projects in the field of LTE/NR protocol stack development since May 2016. First I had an internship developing using C programming language on Open Air Interface (OAI) simulation environment to implement shorter Transmission Time Interval (TTI) feature for LTE release 15. OAI is an open source software and hardware development of 3GPP cellular networks. During the internship, I learned a lot about the LTE protocol stack specially the physical layer and enhanced my skills in open source software development.

Then I did my master thesis in the topic of new uplink multiple access schemes for Ultra Reliable Low Latency Communication (URLLC) in New Radio (NR). Our focus was to test new multiple access schemes such as Grant Free (GF) to reduce the latency. Through the thesis preparation, I acquired the experience to implement a system level simulator which includes several LTE MAC layer functionalities and entities interacting with each other. The simulator was implemented using MATLAB object oriented programming evaluating several Key Parameters Indicators (KPIs) of the LTE cellular network. Then I was offered a full time job implementing sTTI physical layer features for LTE release 15 on OAI real time hardware setup. During this project, I learned about real time data processing and multi-threading. Currently, I am a member of the team implementing the physical layer uplink in the new OAI NR project.

I received my Bachelor degree in communication engineering in Egypt, and my Masters in Germany. This experience makes me flexible and adaptive regarding different work environments and traveling. I am still relatively young (26 years old), ambitious and I learn pretty fast.

Finally, thank you for your time considering my credentials. I am looking forward for your feedback.

Yours faithfully,

**Ahmed Khalid**