大家好，我叫王子。很荣幸可以参加今天的会议。接下来我通过三方面介绍我自己。

首先是对于C++语言方面，我有C++的开发经验并且独立开发过一些软件，比如CRC计算器，机票预定器，学生管理系统等等。不难发现这些软件有一个相同之处就是需要面向对象编程，所以主要用到的技术主要是封装，继承，和多态，换句话说就是类，继承，容器，函数重载等技术，这也是C++语言和C语言最大的区别之处。并且之前在恒润科技工作也用Matlab配合C++完成一些客户需求的工作。同时在工作之余，也喜欢研究最新技术，也使用C++开发过一些其它的软件，这也是我的爱好。

其次是关于AutoSAR经典架构，我之前也是在汽车行业工作，所以经常会和AutoSAR打交道尤其是在Vitesco工作的这段时间。在DIDI Mona BMS项目中，我做过Com Stack的开发，配置EcuC,Can,CanIF,PduR,Com等模块，还有UDS,NvM，网络管理开发，配置Nvm，Lifm，CanNM等模块；我当前正在做Geely PC01 BMS项目，做过E2E，CanSM相关开发。我具有软件调试和测试相关经验。

最后是关于Python的介绍，我认为Python是一个很好的可以提升工作效率的编程语言，它可以快速完成需要重复劳动的工作在某些情况，所以在工作中我也用它来协助自己进行开发工作，比如他可以在配置Com Stack时对比配置后的Arxml文件区别，来进行批量的配置，大大的节省了时间；我也用python做过解析Lifm中的block和地址的软件，原理是通过Subproess解析源文件，然后使用XmlToDict将其转化成字典，最后设计逻辑算法使用Xlwt将解析出来的数据存储到Excel中，这些都实现以后使用Tkinter实现GUI的设计与创建，最后完成该软件的开发。除此之外我还开发过其他的软件，由于时间关系就不一一列举。它可以是我们很好的工作助手！

总的来说，我熟悉C语言，C++语言，Python语言；有AutoSAR Classic architecture的开发经验。并且在Vitesco的工作时间也提升了我对它的理解同时也具有了BMS项目的开发经验，我很希望能够参与到这个项目中，谢谢大家的倾听，我的介绍完毕，欢迎大家的提问！

Hello everyone, my name is WangZi. It is an honor to be here today. Let me introduce myself in three ways.

First of all, for the C++ language, I have experience in C++ development and have independently developed some software, such as CRC calculator, air ticket reservation, student management system, etc. It is not difficult to find that these software have one thing in common, that is, they require object-oriented programming, so the main technologies used are encapsulation, inheritance, and polymorphism, in other words, classes, inheritance, containers, function overloading and other technologies, which is also the biggest difference between C++ language and C language. In addition, I also used Matlab with C++ to complete some work required by customers when I worked in Hengrun Technology. At the same time, in my spare time, I also like to study the latest technology, and I have also developed some other software using C++, which is also my hobby.

Secondly, about the AutoSAR classic architecture, I also worked in the automotive industry before, so I often worked with AutoSAR, especially during this time at Vitesco. In the DIDI Mona BMS project, I have done the development of Com Stack, configured modules such as EcuC, Can, CanIF, PduR, Com, etc., as well as UDS, NvM, network management development, configuration of Nvm, Lifm, CanNM and other modules; I am currently working on the Geely PC01 BMS project, and have done E2E, CanSM related development. I have experience in software debugging and testing.

Finally, I think Python is a good programming language that can improve work efficiency, it can quickly complete the work that requires repetitive work in some cases, so I also use it to assist myself in development work, for example, he can compare the difference between the configured Arxml files when configuring Com Stack, to configure batches, which greatly saves time; I have also used python to parse the block and address software in Lifm, the principle is to parse the source file through Subproess, and then use XmlToDict to convert it into a dictionary, and finally design the logic algorithm to use Xlwt to store the parsed data into Excel, which is implemented in the future use Tkinter to realize the design and creation of the GUI, and finally complete the development of the software. In addition, I have developed other software, which I will not list all of them due to time constraints. It can be a great work assistant for us!

In general, I am familiar with C language, C++ language, Python language; Experience in the development of AutoSAR Classic architecture. And the working time at Vitesco has also improved my understanding of it and I have experience in the development of BMS projects, I would like to be able to participate in this project, thank you for listening, my introduction is over, welcome your questions!

大家好，我叫王子。很荣幸可以参加今天的会议。大学毕业后就在汽车电子行业工作，到目前已经工作大概两年半了。2021年8月份开始是在恒润科技工作，主要做应用层相关的工作，比如用Matlab搭建防夹算法模型,使用C语言和C++语言负责个性化功能实现，吉利，华人运通的项目比较多；去年9月份开始在Vitesco，在中国天津的BSA部门，在做的主要是BSW方面的工作，比如Com Stack的配置，CanSM,Dcm的配置等等，主要做的是DIDI Mona BMS和Geely PC01 BMS项目，同时也有了调试和测试方面的经验。除此之外，工作中还经常用C++做一些小工具辅助工作，用python写一些脚本提高工作效率。这是我的介绍，细节问题欢迎大家展开讨论！

Hello everyone, my name is Wang Zi. It is an honor to be here today. After graduating from university, I have been working in the automotive electronics industry for about two and a half years. Since August 2021, I have been working in Hirain Technology, mainly doing work related to the application layer, such as using MATLAB to build an anti-pinch algorithm model, using C language and C Plus plus language to be responsible for the implementation of personalized functions. Since September last year, I started working at Vitesco in the BSA department in Tianjin, China, mainly doing BSW work, such as Com Stack configuration, CanSM, Dcm configuration and so on., mainly doing DIDI Mona BMS and Geely PC01 BMS projects, and also has experience in debugging and testing. In addition, I often use C Plus plus language to do some small tools in my work and write some scripts in python to improve work efficiency. This is my introduction, and you are welcome to discuss the details!

为什么用开发这些软件？Why develop these software?

因为这是节省很多时间的事情，比如E2E CRC计算器，它几乎可以在任何有关E2E的开发工作中起到帮助作用。

Because it is a time-saver, like the E2E CRC calculator, it can help in almost any E2E-related development effort.

E2E CRC计算器是如何帮助工作的？ How does the E2E CRC calculator help work?

E2E开发工作中，客户不同的需求有不同的CRC计算逻辑，CRC E2E计算器可以帮助计算checksum，就不用写CAPL或者其他方法了；同时在调试过程会更有帮助。

In the development of E2E, customers have different CRC calculation logic for different needs, and the CRC E2E calculator can help calculate checksum, so there is no need to write CAPL or other methods; At the same time, it will be more helpful in the debugging process.

开发这些软件使用什么方式？ How do you develop this software?

基于C++开发的原因主要是面向对象编程，所以最主要的就是封装，继承和多态。这也是和C++语言和C语言最大的区别之处。

The main reason for developing on C++ is object-oriented programming, so the main ones are encapsulation, inheritance, and polymorphism. This is the biggest difference between C Plus Plus language and C language.

使用封装，继承和多态都实现了哪些需求？

我还是用E2E CRC计算器举例，封装就是使用类，CRC计算有不同的规则，比如CRC8,CRC16等等，先创建一个CRC8的类，将CRC计算逻辑写在虚函数中。然后使用其他类继承CRC8的类，重写虚函数即可。最后根据不同的类的对象，实现多态，计算不同的CRC。

I still use the E2E CRC calculator as an example, the encapsulation is to use classes, CRC calculation has different rules, such as CRC8, CRC16, etc., first create a CRC8 class, and write the CRC calculation logic in the virtual function. Then use other classes to inherit from CRC8's classes and rewrite the virtual function. Finally, according to different classes of objects, polymorphism is implemented, and different CRCs are calculated.

机票软件也是类似的做法，但是他还是用容器也就是STL去储存相关信息。

The ticket software does the same, but it still uses a container, or STL, to store the relevant information.

在参与的各个项目中，自己的贡献和收获? In the various projects you have participated in, what have you contributed and gained?

在Vitesco的项目中，学到了BSW的相关经验，比如各个模块的配置以及原理和对单片机的理解。在Hirain主要是学到了应用层的经验，比如MATLAB模型。除此之外还有C++，python技能的提升。

During the Vitesco project, I learned about BSW's experience, such as the configuration of the some modules, as well as the principles and understanding of microcontrollers. At Hirain, I mainly learned experience in the application layer, such as MATLAB models. In addition to this, there is also the improvement of C++ and python skills.

对BMS@SOA项目的了解，自己参与项目的动机，目标. Knowledge of BMS@SOA project, motivation for participating in the project, goals.

目前来看，他是基于

AUTOSAR AP的项目，需要使用到C++，正好我也会C++，也有AUTOSAR classic架构的经验，所以想参与相关工作，做一点贡献吧。

At the moment, it is based on The AUTOSAR AP project needs to use C++, and I also know C++ and have experience with the AUTOSAR classic architecture, so I want to participate in the related work and make a little contribution.

AutoSAR AP和CP的区别。 AutoSAR AP and CP differences.

AdaptiveAutosar的出现并不是为了取代ClassicAutosar平台，而是针对不同的应用场景，ClassicAutosar平台支持高安全性和高实时性的应用场景，而AdaptiveAutosar则支持大数据的并行处理，所以我认为二者是应用于不同的领域。

AdaptiveAutosar is not designed to replace the ClassicAutosar platform, but for different application field, the ClassicAutosar platform supports high-security and high-real-time application field, while AdaptiveAutosar supports parallel processing of big data, so I think the two are applied to different fields.

我的英文水平一般，但是工作中沟通是没问题的。

My English is average, but communication is no problem at work.

如果我能参与这个项目，大概什么时候开始呢？

If I can participate in this project, When will it begin？

过去很长时间，不记得了。

It was a long time ago. I don't remember.