Personal Resume

BASIC INFORMATION

Name	Kai Zhang	Mail	15122986177@163.com
Date of Birth	Mar. 11th,1992	Tel.	15122986177

EDUCATION

Apr. 2017 – Nov.2020 Karlsruhe Institute of Technology（KIT） Germany

Master's degree in Engineering

Major: Mechatronics and Information Technology

- Focus 1: Industrial Automation
- Focus 2: Robotics

Sep. 2012 – Jul. 2016 Hebei University of Technology China

Bachelor's degree in Engineering

Major: Mechanical design and manufacturing and automation

- Master-Thesis: Design of Ergonomic Automatic Adjustable Chair

PROFESSIONAL EXPERIENCE

Dec.2020 - Present **KOSTAL (Shanghai) Mechatronic Co., Ltd. Shanghai, China**

Dec.2022 - Present **Body Domain Control Unit** CEM Project - **Integration Development Leader**

- **Setting up** the **hardware and software environment** for integration testing
- **Compile software, burn-in hardware and integration test**
- **Design final inspection program** for production line
- **Design EMC host computer** and **EMC test special software** required for **EMC test of PCBA**
- **Locate causes of issues** in **integration testing and system testing**, and **communicate** with relevant engineers **to improve the software.**
- **Locate causes of issues** from **customers** and help the relevant engineers to **improve the software**
- **Release Software** to customers and provide **maintenance service**

Jan.2023-Jun.2023 **Vector Toolchain-based Automated Integration Test Platform** for Body-Controllers**-Creator, Promoter**

- **Generating CANoe CAPL Scripts** and **vTESTstudio Configuration Files** Based on **CAN/LIN/IO Matrix** from Customer Using **Python**
- Building **Automated Test Project in vTESTstudio**
- Write **Automated Test Cases** based on customer functional specifications
- Importing automated test cases into **CANoe** for **automated testing**

Aug.2022-Aug.2023 Customer - **YUTONG Bus Co., Ltd - KBCM** (Body Controller) Project **– Software Development Engineer for** Interior Lamp Module

Feb.2022-Aug.2023 Customer - **Great Wall Motor Company Limited - Good Cat Series KBCM**(Body Controller) Project-

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Integration Development Leader

Software Development Engineer for

Diagnostic Module / IO Management Module / NVM Module

ASW Software Architecture Designer

- **SWC Design:** Design SWC components according to software architecture principles
- **Interface Design:** Design interfaces for different SWCs according to software functional specifications and architectural principles
- **ARXML Document Generation**: Configure relevant SWCs and interfaces in Developer, build links, and provide ARXML files to software engineers for the further development of SWCs in MATLAB
- **RTE Generation**: Generate RTE to ensure the validity of the interface transfer, to ensure that the compilation going successful

Mar.2022-Mar.2023 Customer - **Jiangxi Isuzu Motors Co., Ltd. - PEPS**(Keyless Entry System) Project -
Integration Development Leader
Customer - **Jiangxi Isuzu Motors Co., Ltd. - ESCL**(Electronic Steering Lock) Project -
Integration Development Leader

Mar.2022-Mar.2022 Customer - **Li Auto Inc. - Car and Home** Series **KBCM** (Body Controller) Project -
Integration Development Leader

Jan.2021-Dec.2021 Customer - **Great Wall Motor Company Limited - Euler Black Cat Series KBCM** (Body Controller) Project-
Integration Development Leader
Software Development Engineer of BLE/TBOX/VCU/ESCL Authentication Module

SCHOOL EXPERIENCE

Aug. 2019 – Aug.2020 **Master-thesis**

Institute of Ergonomics and Business Organization (KIT), Germany

Title: Design and Verification of Analytical Methods for Optimizing Data Quality in Dynamic Eye Tracking Systems

- Design experiments to collect point cloud tracking image data from eye-tracking systems
- Using open source target recognition AI models Mask_RCNN convert image data into coordinate datasets
- Use the error space interpolation model to compensate for the eye tracking system in Python, so as to achieve the goal of optimizing the data quality of the eye tracking system

Okt. 2018 – Jan. 2019 **System Control Practice**

Institute of System Control (KIT), Germany

Inverted pendulum control

- Establishment of a system model with state space methods
- Simulation system control in MATLAB/SIMULINK
- Design of an observer and implement of balance control with a least squares controller

Rear axle test bench control

- Establishment of a system model with state space methods
- System pole compensation and decoupling control
- Calculation of PID controller parameters through transfer function
- Simulation in MATLAB/SIMULINK and adjustment of PID parameters

Jan. 2016 – Jun. 2016 **Bachelor-Thesis, Hebei University of Technology, Tianjin, China**

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- Title: Design of Ergonomic Automatic Adjustable Chair
- Research of ergonomically designed seat structure
- Design of the way of chair adjustment using relevant mechanism
- Build a 3D model of chair in SolidWorks in a ratio of 1:1
- 2D assembly drawings and 2D components drawings in AutoCAD

May. 2015 – Jul. 2015 **Design of Production Line Using PLC Guide Slider,**
Hebei University of Technology, Tianjin, China

- Calculation of the power and load of the required rails and sliders based on load requirements and selected structure
- Use of calculated power and selection of Siemens rails and sliders
- Import 3D models from manufacturers into SolidWorks for virtual model assembly
- Mechanical analysis of key nodes using Adams
- Design of PLC programs to meet requirements of assembly line

Feb. 2015 – Apr. 2015 **Design of Mechanism for Spot Welding Robot**
Hebei University of Technology, Tianjin, China

- Design of the geometry of each cantilever of the welding robot in combination with the relevant mechanism
- Assemblage of the spot welding robot in Adams
- Simulation and analysis of the dynamic performance in Adams

COMPETENCES

Language: Mandarin (Native speaker)
English (IELTS:6.5)
German (TestDaf:16/C1)

Software:		
	Programming language	**Python C++** MATLAB (Stateflow)
	Vector toolchain	DaVinci Developer&Configurator CANoe vTESTstudio
	Code tool	Smart SVN SourceInsight Eclipse
	Debugging tools	iSYSTEM winIDEA
	Productivity tools	Xmind

Hobbies: Billiards, Running, Calligraphy, Sailing

SPECIAL EXPERIENCE AND HONORS

Feb.16.2023 **Host of the Chinese New Year's Eve dinner party** of AE Electronics Development Department of Kostal Asia Headquarters

Jan.2022 – Dec.2022 **Prize for the Excellent employee of Kostal (Shanghai) Electromechanical Co., Ltd the year 2022.**

Feb.28.2022 **Host of Annual Commendation meeting** of AE Electronics Development Department of Kostal Asia Headquarters

Mar.2022 – Jun.2022 During the **block of Shanghai** due to epidemic prevention and control, I was **stationed in the company** to assist in completing a number of urgent tasks