

# Christian Breu

Software System Designer - Monitoring

#### **PROFILE**

Software System Designer for safety software with programming background. Skills include analytical thinking and communicating effectively with foreign colleagues of various countries.

Able to lead technical discussion about various safety standards with customers.

#### CONTACT

- 070-4518-6417
- □ cbreu0@icloud.com
- in LinkedIn Url
- 170-0012 Tokyo-to, Toshima-ku, Kamiikebukuro
   3-34-11 1207

#### LANGUAGE

German
English
Japanese

# Certificates and Licenses

TOEFL iBT 101 points
JLPT N2
Drivers license

#### **EDUCATON**

## **University of Freiburg**

Bachelor of Science in Computer Science 2014 - 2019

#### **Waseda University**

Japanese Language Program 2016 - 2017

#### **Municipal High School Ettenheim**

High School 2006 - 2014

#### **EXPERIENCE**

#### **Yume Technology**

Software Engineer
2019 - present
Engineer Outsourcing business

#### **Bosch Japan (assigned company)**

Software System Designer - Monitoring 2019 - present

Powertrain Solutions Department

Engine Control Unit Monitoring Software Development

#### PERSONAL SKILLS

Organisation
Communication
Analysis
Teamwork
Leadership

#### Hobbies

Karate Bouldering Cars

# Programming Languages and Frameworks

Java

FX, AWT, JUnit, Jmonkey Engine

#### **Python**

Django, Pylint, Numpy, Scipy, CCOBRA

C#

MonoGame, .Net

LISP

**ACTR** 

**Javascript** 

React, Bootstrap

**SQL** 

#### Tools & other

Git

SVN

Trac

JIRA

html

**MS Teams** 

Slack

MS Office

Latex

## Personality

I am a hardworking, autonomous and determined person with good time management.

One of my characteristics is the ability to stay long term focused on problems.

A good example for this is a seminar at university. The goal of this seminar was to check whether a given computational cognitive theory can be used to model a famous experiment of cognitive science. As the expected result could not be achieved with simple methods, we tried various patterns and modifications and spend a lot of time almost every day until we were able to model the results of the experimental data.

Finally, we were able to present a result which deeply impressed the professor. The result of this seminar was used in a paper that was presented at a conference about logics in Al.

(Reference: Link to publication)

Another of my traits is that start tasks and projects as early as possible to avoid missing deadlines. This way I have enough time to try another approach or ask my colleagues for help if I need a different angle on my approach. This can also reduce the stress on co-workers as there are less situations where immediate help is needed.

In general, getting my projects done early gives me the chance to tackle new projects with a head start. Also i can support my colleagues to improve team efficiency.

## University- and Private Projects

One project from university that I want to mention is a game development project with a group of six people. The game is a 2D strategy game with a pirate setting developed with C# in Monogame by utilising SVN, Jenkins and Trac. The project duration was three months and Scrum was used for development.

There was a weekly meeting to review the current sprint and to plan the goals for the next one where each team member was assigned to his tasks. For the daily communication, Slack was used to quickly align on urgent topics.

This project showed me the importance of good communication in a team to help each other out to become very efficient at developing. Because of this efficiency, the team could spend more time on debugging and balancing the gameplay.

At high school, I build a vocable trainer Android app and created a 3D multiplayer ego shooter with JMonkey Engine together with a friend. In my recent free time I learned about Web Development. For front end I learned the basics of Javascript and later used React and Bootstrap. For back end I use Django to build a web application.

More details about previous projects can be found in my portfolio.



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## My Experience at Bosch

At Bosch I work as Software System Designer in the development of monitoring software for Electronic Control Units. This software is developed according to the ISO26262 standard for Functional Safety. At Bosch the V-Model is used with a strict Automotive SPICE conform process.

I worked for two customer projects in which I handled safety requirements and customer discussions.

#### Project Y - Acquisition Phase

In this project I was handling the customer discussions in the acquisition phase regarding Functional Safety to receive proper safety requirements and to make sure there is a common understanding of Functional Safety. There were regular customer meetings which were held bilingual in English and Japanese. In these meetings, I answered various questions regarding the safety standards and the Bosch Safety Concept. This was especially important, since this project is done with software sharing so the customer also implements software.

#### Project K - Development Phase

For this project my main task was to conduct an Impact Analysis of all functional requirements with regard to the safety requirements. This analysis determines whether a requirement of the functional software has a relevant impact on the monitoring software or not. To make my findings of this analysis more transparent, I documented each impact very detailed by showing influences graphically by connecting the logic diagrams of different functions. This way the reasoning behind the findings can be retraced in the future as well. For safety relevant requirements, a corresponding change in the monitoring software is designed to fulfil the safety requirements. These changes are written as requirements for the development team after the Impact Analysis findings are carefully reviewed. My task also included regular contact with the development team in India and Germany for clarifications.