## **Phan Truong Minh Khanh**

DevOps Engineer

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#### **PROFESSIONAL SUMMARY**

With more than a year of experience as an Embedded Software Engineer and DevOps Engineer. I'm proficient in building and deploying lab environments, focusing on CI/CD pipeline design with Jenkins using scripting languages mainly Python, Groovy, and container technologies. I have practical experience in setting up more than 50 slave machines to connect to the Jenkins master machine and am proficient in creating Reqtify model projects to manage the mapping of ID documents for Top Level Sample with Autosar version 22-11 of U2Bx. I'm experienced in handling daily issues from the MCAL software development team, capable of debugging with Cantata software; Python, Groovy scripts to automate Jenkins pipelines.

#### **TECHNICAL SKILLS**

**Programming Languages & Tools:** Proficient in Python, C/C++, C#, VSCode, Visual Studio, Eclipse.

Scripting Languages: Python, Groovy, PowerShell, Bash Shell, Batch Script.

CI/CD Tool: Proficient in Jenkins, Gitlab CI.

**Container services: Docker Source Code Management: Git**, SVN.

Software & Tools: Autosar: Proficient in Reqtify, PRQA Framework, Cantata.

**Continuous Planning Tools:** Jira.

**Networking:** Basic knowledge of HTTP/HTTPS, SSH, TCP/IP.

Office: MS Word, Power Point, MS Excel.

**Others:** Cygwin, Compiler such as GHS, ArmCompiler, Linux (Ubuntu).

#### **WORK EXPERIENCE**

**Ban Vien Corporation** | Embedded Software Engineer, DevOps Engineer

Mar 2023 - Current

- Work Location: Outsource for Renesas Design Vietnam Co., Ltd.
- Jenkins help desk daily: fix, debug and identify errors from Jenkins jobs reported by MCAL team for all jobs including: Coding (AMDC, QAC, SampleApp, Gentool, Coverity, Compilation Check), Unit Testing (Tool and Driver Unit Testing), Integration Testing (Tool and Driver Integration Testing), and Traceability.
- Do support tasks when requested by the MCAL team such as creating job DUT, TUT, DIT, TIT, Gentool, Traceability,...
- Enhance the code, including the CI/CD pipeline and scripts, to have the ability to inherit, reuse, and easily scale, allowing for straightforward updates when new projects arise.
- Support MCAL team to set up Jenkins agent machine (connect LAN, create lab environment, install necessary software, connect agent to master).
- Experienced in using Reqtify software to debug regex mapping ID documents, using Cantata to debug MCAL source.
- Hands-on experience of tracking tools such as JIRA.
- **Technical Skills:** CICD, Jenkins, Docker, Groovy, Python, C/C++, Git, SVN, Bash Shell, Batch File, C#, Reqtify, Cantata, PRQA Framework

## **PROJECT**

## **REQTIFY - SUPPORT TOP LEVEL SAMPLE FOR U2Bx** | Renesas Design Vietnam Co., Ltd.

Feb 2024 -Mar 2024

- **Position:** DevOps Engineer, handle end-to-end.
- Project Description: Support Traceability for Safety Requirement (Module Requirement Specification, MCAL Summary Software Requirement Specification, Safety ApplicationNote, Requirement ID Management,...).
- Handling end-to-end processes in creating, configuring, designing, analyzing, and customizing projects with Reqtify 2021x Refresh1.
- Work with the MCAL team to understand how documents map IDs, analyze to create regex for capturing IDs in documents.
- Create a Jenkins CI/CD pipeline for the Reqtify job to automatically reload, generate automatic Traceability reports through the GUI with VBScript, support U2Bx, U2Cx, Gen4, Gen5, Radar.
- Technical: Python, Jenkins, Groovy, VBScript, BatchFile, Git, SVN, Regtify 2021x Refresh1.

#### **DRIVER UNIT TESTING FOR GATEWAY** | Renesas Design Vietnam Co., Ltd.

Mar 2024 - Current

- Position: DevOps Engineer, handle end-to-end.
- **Project Description:** Support create a Jenkins job and CI/CD pipeline for the Gateway project.
- Work with the Gateway team to understand the process of running test app with Cantata and create report excel.
- Code scripts to automatically checkout and copy resources of the Cantata test app, and the MCAL module's source driver;
  Code scripts to automatically build the source code with the existing Test cases in Cantata using the command line
- **Technical:** Python, Jenkins, Groovy, BatchFile, Git, SVN, Cantata.

#### **TOOL UNIT TESTING** | Renesas Design Vietnam Co., Ltd

Jan 2024 - Feb 2024

- **Position:** DevOps Engineer, handle end-to-end.
- Project Description: Support create a Jenkins job and CI/CD pipeline for Gateway, Radar, Gen4, Gen5, U2Bx.

- Work with the MCAL team to understand the process of running the C# Tool Unit Testing project.
- Create a Jenkins job, design a CI/CD pipeline, and code Python scripts to automate the steps of TUT
- Code Python scripts to run C# projects TUT and execute test cases using Visual Studio Enterprise's command line; script the creation of Excel Coverage Reports; and improve the C# tool to automatically generate test reports from the test plan.
- Technical: Python, Jenkins, Groovy, Git, SVN, C#.

## **FUNCTION COVERAGE AND CALL COVERAGE (SOS1)** | Renesas Design Vietnam Co., Ltd

Dec 2023 - Oct 2023

- **Position:** DevOps Engineer, handle end-to-end.
- **Project Description:** This project SOS1 is a testing process to confirm that all functions or function calls in the MCAL source code are executed at least once during testing. This ensures that every part of the source code has been tested.
- Work with MCAL team to understand the testing process (input, output, environment).
- Create a Jenkins job, design a CI/CD pipeline, and code Python scripts to automate the steps of the job Function Call Coverage.
- Code Python scripts to create an environment for Cantata, run debugging to obtain code coverage results; establish an environment to measure code coverage and generate Excel reports.
- **Technical:** Python, Jenkins, Groovy, Git, SVN, Cantata, Compiler GHS, Emulator.

## **EDUCATION**

# Ho Chi Minh City University Of Technology, Viet Nam National University

Aug 2018

Mechatronics Engineering

## **SKILLS**

Able to communicate, understand, and write documentation in English.

Possess time management skills, problem-solving abilities, and strong communication skills.