Tom Davison

15 Latrobe Street Newport | 0422931765 | TomWilliamDavison@gmail.com

SUMMARY

- A detailed-oriented and self-driven .NET Developer with 4 years' experience in developing and testing software for embedded devices. Skilled in .NET core, MVC design pattern, C, C#, Bash, firmware and API development, Jenkins CI/CD pipeline and Linux based operating systems. A critical thinker with attention to detail with experience creating documentation which is highly scrutinized

EXPERIENCE

Software Quality Assurance Engineer – Axxin

Duties and Accomplishments

- The development of software documentation including specification as well as software test cases which satisfied internal as well as ISO and FDA requirements

- Design and programming of an array medical device scripts and macros which the quality assurance team used to simultaneously reduce both the time commitment as well as margin of error

- Troubleshooting and analysing software running Bash C# and C code. Iterating through changes and identifying and flagging inconsistencies

- Communicating complex topics verbally and in writing in a concise manner

- Created a tool when the team transitioned between test management systems which greatly increased the speed at which test protocols could be imported. Allowed to the team to work on more crucial deadlines

Automation API

- Creation of macros using Bash to automate the running of tests to expose and analyse software defects

- Designed and created macros and scripts which dynamically responded and reacted to device level events

- Created macro and script templates which allowed co-workers from other disciplines to create responsive macros without having a deep understanding of programming

Device Mirror Software

- Independently created software using C# and windows forms which utilized the automation API to control medical devices remotely

- Expanded upon the creation of this project to allow users to create and record macros using GUI events

- Further expanded the software to support the exporting of created macros to Bash

Software Development Engineer – Axxin

Duties and Accomplishments

- The full stack development of C# software coupled with firmware written in C which fulfils the specifications of an international customer and also satisfies ISO and FDA requirements.

- Development and integration of a desktop applications which asynchronously communicate with networked medical devices.

- Troubleshooting and debugging multiple branches of a full stack system which has been in production for over 10 years.

Automation API

- Design and Implementation of a device API which allowed customers to modify, execute and return system data for R&D purposes.

- Modification of firmware written in C which allowed the Automation API to have finer control over hardware level events such as rotor movements and optical module outputs.

- Creation of a scripting language and interpreter that allowed customers to execute API commands sequentially

Project Lead – Project Magneto

- Design and Implementation of a highly specialized workflow which interfaces directly with device firmware via the execution of custom python like scripts.

- Liaised with customer to elicit requirements and work collaboratively to deliver a product which met expectations and requirements.

- Assisted in the development and addition of a multi-page workflow which could identify new test workflow accessories

WORK EXPERIENCE

Receptionist | Royal Yacht Club of Victoria   **Nov 2012 to 2018**

Involved managing payments and clerical work during times where no other employees were working

Software Developer | Final Year Project: Opaque Media   **March 2017 to November 2017**

Deputy lead on a research project for developing a generalized end to end tool which utilized a convolutional neural network to provide real time analysis of hand poses using a generic depth camera. Involved the creation of additional tools to expand this functionality such as a finite-state-machine to recognise more complex patterns as well as a benchmarking suite.

Software Quality Test Engineer | Axxin   **November 2018 to March 2020**

Developed and ran software test cases, protocols and validation summary reports that satisfy internal, ISO and FDA requirements for the use in testing of biomedical devices. Involved identifying, documenting and following through to resolution of software defects during all testing phases.

Software Development Engineer | Axxin   **March 2020 to April 2022**

Full stack development of an embedded biomedical device including software written in C# .NET as well as firmware written in C which has been in production for over 15 years. Addition of device API as well as Experience with Jenkins CI/CD pipeline. Creation of accompanying documentation that satisfied internal, ISO and FDA requirements.

EDUCATION

Bachelor of Computer Science, Swinburne University of Technology, 2018

REFERENCES

Available on Request