

Michael BRYAN

PERSONAL INFORMATION

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GITLAB: <https://gitlab.com/Michael-F-Bryan/>
GITHUB: <https://github.com/Michael-F-Bryan/>

MISSION STATEMENT

To leverage the theory gained while studying Mechanical Engineering, many thousands of hours as a software developer both professionally and as a member of the open-source community to explore the field of embedded systems.

WORK HISTORY

FEBRUARY 2018
– CURRENT

Software Engineer at Wintech Engineering

Responsible for the 9th edition of *Wintech Profiler*, Wintech's domain-specific CAD/CAM package for controlling CNC foam cutting machines.

- Rewrote the entire application in C# and WPF
- Contributed 150kloc to the project (110kloc of C#), approx. 2000+ tests, 550 merged feature branches
- Managed the release to beta testers, including factory visits and checkups
- Introduced modern software practices like revision control (git and GitLab), Continuous Integration, and release automation
- Regularly provided technical support to customers in matters related to software and the motion control system
- Assisted in the debugging and fixing of bugs in the firmware running on the STM32 motion controller

MARCH 2017
– FEBRUARY 2018

Part-Time Developer at Wintech Engineering

Assisted in refactoring and maintaining *Wintech Profiler 8*.

- Debugged and solved bugs in the application
- Refactored legacy code
- Implemented a new automated mechanism for flashing motion controller firmware in a production environment

NOVEMBER 2016
– FEBRUARY 2017

Internship at Wintech Engineering

- Created an interface to a 3rd party autonesting program for optimally positioning parts to minimise waste
- Implemented pathfinding to optimally link multiple nested parts into a contiguous cut path
- Upgraded the Profiler 8 GUI to incorporate modern components like Ribbons and high resolution icons

OPEN-SOURCE PROJECTS

mdbook	Core maintainer of <i>mdbook</i> , a program for rendering documentation to HTML for online viewing from November 2017 to January 2019. As maintainer I triaged issues, performed code reviews, and managed the other contributors to keep the project heading in the right direction. <i>mdbook</i> is most prominently used by <i>The Rust Programming Language</i> . It Currently has over 940,000 official downloads and 129 contributors. (https://github.com/rust-lang-nursery/mdBook)
The Rust FFI Guide	A tutorial which teaches people how to interoperate between Rust and other languages via C APIs. Commonly referred to as one of the best references for teaching people how to write projects where multiple languages need to interoperate at the ABI level (e.g. mentioned by Baidu developers as a valuable resource at a recent RustFest talk). together, explaining best practices and high level architecture decisions. (https://michael-f-bryan.github.io/rust-ffi-guide/)
gcode-rs	A g-code parser for use in memory-constrained environments. Primarily used by hobbyists wanting to implement their own 3D printers. (https://github.com/Michael-F-Bryan/gcode-rs)

PROGRAMMING LANGUAGES AND TECHNOLOGIES

ADEPT <i>(drop me in a new project and I'll be productive immediately)</i>	C#, RUST, GO, WINDOWS GUI PROGRAMMING (WPF), PYTHON GIT, LINUX (<i>Arch Linux user for 4 years</i>)
CONFIDENT	EMBEDDED C, C++, WEB UIs USING JAVASCRIPT AND VUE.JS OR REACT.JS, SQL DATABASES (POSTGRES, SQLITE), DOCKER AND MICRO SERVICES, DELPHI PASCAL

EDUCATION

2013 - 2018	Bachelor of Mechanical Engineering - incomplete Curtin University
2012	Australian Tertiary Admission Rank - 99.90 Scotch College

ADDITIONAL DETAILS

- Member of the *State Emergency Service (Communication Support Unit)* since November 2018.
- Member of the *Curtin Motorsport Team* from 2014 to 2018. Held the *Assistant Project Manager* role during 2015 and was involved in the various software projects as part of the Electrical Team
- Holder of a High Risk Work License (i.e. forklift driver) since 2014
- PADI Open Water Dive certificate holder since 2011

REFERENCES

James Boyle	
RELATIONSHIP	Coworker and project supervisor at Wintech Engineering until February 2019
CONTACT NUMBER	0455 667 347
Nicola Staltari	
RELATIONSHIP	2016 Technical Director at the Curtin Motorsport Team, oversaw my performance as a member of the electrical area
CONTACT NUMBER	<i>(to be provided upon request)</i>