

# Thomas Loch

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## Summary

Embedded developer with a focus on quality. Latest experience include developing c++ applications for embedded linux devices, using QT, CMAKE, visual studio. With a strong focus on product quality by setting up and maintaining CI pipelines using Microsoft TFS, and incorporating and gathering large sets of data to improve/debug new features remotely. Previous experiences with cloud workflows of Microsoft, along with Azure Dev-Ops build pipelines. I have also worked in the electronic manufacturing industry, focusing on pcb development and manufacturing proficiency. Strong professional with a Bachelor of Aviation from Griffith University.

## Education

### 2019, Working Talent, The Netherlands

IoT Masterclass

### 2018 - On Hold, University of Southern Queensland, Australia

Bachelor of Engineering (Honours) Majoring in Computer Systems

GPA: 6.29

### 2009 - 2012, Griffith University, Australia

Bachelor of Aviation, Graduate Diploma of Flight Management

GPA: 4.6

### 2007 - 2008, Metropolitan South Institute of TAFE

Certificate III in Computer Aided Drafting

### 2004 - 2008, Loganlea State High School

High School Certificate Year 12

## Certificates

**Microsoft 70-483** Programming in C#

## Work Experience

### 03/2020 - Current, Euphoria Software (Cabman)

Embedded Developer

- Taximeter MDT (Mobile data terminal): Within a team of 6, we built up this new product to replace the aging solution currently in place. This new hardware evolution has allowed for the integrations of new technologies such as Bluetooth and NFC. As a team we have been reasonable for getting the product ready for the Dutch regulations whilst simultaneously developing new features to attract foreign customers. Over the last few years I have become ever more interested in the quality of the product, through the use of device health monitoring, and suggesting and implementing code quality controls and metrics. I also enjoy combing through large datasets to find and squash ever more elusive bugs.
- *Tools Used:* C++, QT, CMAKE, Linux, Python, C#, SQL, Git, Scrum, TFS YAML pipelines.

## **03/2019 - 11/2019, Atos (via Working Talent)**

IoT Developer

- Medical Smart Fridge: This project revolved around the tracking and tracing of medicine, through the use of RFID technology. The purpose was to keep tight control over controlled drugs, be able to pinpoint which fridge the medicine resides in, and keep track of expiration dates / storage conditions. I was responsible for hardware procurement, assembly, and programming.
- Connectivity Platform: This project aims to serve as a single cloud based point of access for various data sources. I become involved with the project as scrum master, and programmer for small battery operated hardware. I worked with various communication platforms such as LoRa, NB-IoT, and BLE (Bluetooth).
- *Tools Used:* C#, ASP.NET Core, C++, Arduino, Git, Scrum, Azure, SQL, Azure devops pipelines.

## **11/2017 - 01/2019, Loch Engineering**

Owner

- Design and assembly of custom mechanical keyboards
- *Tools Used:* Altium Designer, KiCad, Autodesk Inventor, C#, C++, Git.

## **07/2016 - 11/2017, Pacific Data Systems Australia Pty. Ltd.**

Production Technician | R&D Technician

- Assembly and testing of company products, using machines and hand tools.
- Assembly of pcb's, using a pick and place machine (Autotronik BA385V2), and reflow oven.
- Assembly of small R&D pcb batches, using hand tools, down to 0402 sized components.
- Programming, fault finding and fixing of assembly and R&D pcb's.
- Designing circuit boards, to a strict set of design standards based on product needs.
- Maintaining an up to date inventory of all components, and upkeeping the BOM of all company electronic products.
- Making inhouse modbus testing software using C#
- *Tools Used:* Altium Designer, Autodesk Inventor, C#, Git.

## **11/2013 - 07/2016, Aldi**

Trainee Store Manager (from 10/2014) | Workplace Health & Safety Officer

- Exceptional customer service.
- Responsibility of all store money.
- Ensuring shifts happen as scheduled, within operational guidelines at all times.
- Staff training, and maintenance of standards among all staff.

# **Skills**

## **Languages**

- English
- Dutch

## **Computer software | languages**

- C/C++ - Large code base >10 years old, that continues to intergrate new code practices
- C# - Testing software using RS485/Modbus, ASP.NET dashboards
- Python/Bash/Powershell - Scripting to support projects and pipelines.
- Linux -
- SQL - Large datasets with >2 million entries per day.
- Latex - Product documentation, resumes & cover letters
- Git - multi team repos with many users.
- Inventor - 3d modelling and sheet metal design.
- HTML/JavaScript - Basic website design, pure JavaScript
- Altium - 2-4 layer design, down to 0402 size

## Other

- I have run my own business designing and selling custom keyboards

## Aviation

### License

Commercial Pilot License 11/04/2012 | Training Completed at the Airline Academy of Australia

Private Pilot License 18/07/2011 | Training Completed at the Airline Academy of Australia

Total Flight Time: 240 Hrs | PIC: 80 Hrs

### Rating & Endorsements

- Single Engine (<5,700 kg)
- Multi Engine Command Instrument Rating
- Beechcraft Duchess BE76
- Manual Propeller Pitch Control
- Retractable Undercarriage
- Tailwheel Undercarriage

## References

### Vincent Bekker

Head of development

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### Guido van der Sluis

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### David Hugman

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