# **Dan Purcell**

#### **Technical Generalist**

Audio Visual / Bespoke Electronics

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Github

#### In a nutshell

### Military Background

RAF Weapons Technician / Flight Servicing Mechanic. Disciplined, reliable, flexible.

# Automotive Industry Experience

Electronics assembly, test system maintenance, fault diagnosis, repair and development.

## Proud Geek!

Self-taught programmer and electronics tinkerer. Always building something and always learning.

# **Professional Experience**

#### Atlas AV - Penllergaer Business Park, Swansea

Jan 2018 - Oct 2018

- Operations Technical Engineer. Responsibilities include:
  - · Remote diagnostics.
  - Delivering bespoke electronic/programming solutions.
  - · Reverse engineering and resurrecting undocumented exhibits.
  - Breakdown response, fault diagnosis, rectification, installation, commissioning and maintenance of Audio Visual equipment.

### KSR Electronic Systems - Penllergaer Business Park, Swansea

Jan 2012 - Dec 2017

- Promoted to the position of Junior Test Technician in May 2015. Responsibilities include:
  - Supporting the Test department in developing new and existing test systems.
  - Debugging and contributing code for bespoke C# test software.
  - Supporting the Quality department in validation and failure analysis activities.
  - Breakdown response, fault diagnosis, rectification and maintenance of Test department equipment, including:
    - · Parametric and stress test systems
    - Aeroflex ICT
    - · Hipot Testers
    - · Laser etching and de-flash systems
    - · PLC controlled test handlers
    - · Bespoke test systems
- Joined as an operator in 2012 and quickly rose to the position of Technical Operator where my responsibilities included:
  - · Process set-up & product / tooling changeover
  - Maintenance & breakdown response
  - SPC
  - Stock control
  - Rework

#### **Royal Air Force**

#### 2001 - 2006

- Aircraft Weapons Technician. Working as part of a team, maintaining the weapons systems on the fleet of Nimrod MR2 aircraft. Responsible for fault diagnosis and rectification of all weapons systems, safe handling and loading of explosive stores and also Search and Rescue equipment. Often deployed overseas as the sole WT on crew.
- Composite Servicing Mechanic. Responsibilities included physical checks of the skin, undercarriage, flying control surfaces, brakes, lights, engines and tyres. Also refuelling and replenishing liquid oxygen, nitrogen, hydraulic oil, coolants, water and engine oil. Constantly working under pressure to maintain the flying programme.
- Twice attached to the station armoury at RAF Aldergrove, Belfast. Responsible for issues and receipts of weapons and ammunition as well as servicing of small arms.

## **Hobbies**

- Programming
- Electronics
- Arduino
- Raspberry Pi
- · Guitar, bass and keyboards
- Laser cutting/etching

## **Interests**

- New technology
- Artificial Intelligence
- Linux

# **Coding skills**

Java C#

Wrote an artificial life simulator using my own Neural Network and a Genetic Algorithm code.

Created an Automated Optical Inspection system using only a Raspberry Pi and a camera.

Contributions and bug fixes to bespoke electronic test software with some SQL integration and GUI development.

## Python

Various web scraping scripts, including one that writes live currency exchange data to a dedicated OLED display.

Serial communications and data logging.

#### Arduino (C/C++)

Built and programmed a custom MIDI controller mounted to a guitar for direct control of external effects processing.

Created a temperature and humidity sensor with serial logging.