Dr. Ashley Pursglove

All-Discipline Engineering Chief/Director/Lead Tech Entrepreneur & Materials Expert

Over 5 years at **C** or **director** level in startups and SMEs with a focus on **rapid** technology development and deployment from pilot scale projects to Mega-Project integration.

As director, managed a **multi-national** engineering department up to 13 people **developing and deploying** a technology stack **globally**

Experience spanning **all verticals** of Engineering with specialties in:

- **Prototype Fabrication**
- **Technological Hybridization**
- **Novel Material Development**
- **Electrical and Electronics**
- **Industrial Automation and Robotics**
- **Sensors and Communication Protocols**

A strong coding background in **TIA Portal (STEP 7 & WinCC)** as well as **Python**, **JavaScript and C++**

Personal investment raised **$2M USD**

Tech stack & IP aided in **~$23M USD of** raises

~$12.5M USD of projects delivered

Never over budget or over time on a build

Proven track record of **IP generation** with both **international patents pending** as well as numerous logged **trade secrets**

KAUST, Saudi Arabia

Redacted on website

A.B.Pursglove@gmail.com

Professional Experience

KAUST – Research and Development Specialist, 2023 -

Responsible for the progression of technologies from their nascent stages to advanced technology readiness levels (TRLs). I actively collaborate with both academic experts and industry leaders to develop these innovations through the phases of prototyping and pilot scale, with the end goal of either evolution into spin-off companies or by positioning them as valuable licensable assets for broader industry application.

RedSea(Farms) – Director of Engineering, 2019 - 2023

Built , managed and coordinated an international team of engineers from architectural and civil through to MEP and control systems to develop and deploy the RedSea technology stack across all sites globally. This Included some of the worlds most inhospitable areas and climates. Oversaw and directed DWC (deep water culture) and SWEC (salt-water evaporative cooling) R&D and commercialization that led, in part, to investments totaling ~$23M USD into the company. These systems have been put into action at a commercial scale across the world in numerous harsh environment arenas.

Bill and Melinda Gates Foundation – Research Engineer (Project Lead), 2015 - 2019

Setup and led a prototyping and deployment team with the "Bill and Melinda Gates Foundation" (BMGF). A successful $2M USD funding raise from the Gates Foundation allowed the work and IP generated from my doctorate to be both upscaled and deployed in pilot construction projects. The developed photoreactors allowed the purification of polluted water with sunlight and minimal power input. This was coordinated across multiple countries requiring drinking water solutions with a low dependence on existing infrastructure. These deployments have been showcased in New Zealand, Zambia and India with the New Zealand deployment hybridized with a sub-critical reactor (world first) allowing enhanced purification.

Mμrex Advanced Materials – Co-Founder and CTO, 2014 - 2020

A rapid prototyping and material development organization with a focus on 3D printing and bespoke "functional engineering materials". Alongside developing novel printing materials, the companies' tech stack also included the development of materials for use in Scuba fins, human organ mimicry as well as inert ordnance for battlefield clearance and training (UXO). Inventions and products were showcased at "Arab Health" and selected for trials with Médecins Sans Frontières. Our range of de-mining and UXO equipment was purchased by the UN and deployed around Africa and the Middle East.

Education

Doctorate of Engineering (EngD) - Swansea University **-** 2011-2014

Masters (MRes) in Materials Technology - Swansea University **-** 2010-2011

BSc. (Hons), Applied Chemistry - University of Leeds **-** 2006-2009

Additional Information

- Professional Siemens license holder with expert level knowledge of 1200 and 1500 series systems
- Trained electrician, UK BS-7671 18th edition certified
- Own and run a YouTube channel "The Intrigued Engineer" delving into programming in various languages, industrial/home automation projects and sensors - www.youtube.com/@Intrigued_Engineer
- Experience to an advanced level in engineering design in Autodesk Inventor and Fusion
- 10+ years experience in additive (3D Printing) and subtractive (CNC, mill, lathe) manufacturing techniques
- 7 years flying as a CI with the Royal Air Force (635 Squadron). 4 years pilot, 3 years pilot instructor
- Languages: English (Native), basic German, basic Portuguese (European) and basic Arabic